INFORME TECNOLÓGICO DE PATENTES

DEPARTAMENTO DE PATENTES E INFORMACIÓN TECNOLÓGICA

SERVICIO DE BÚSQUEDAS

DEPARTAMENTO DE PATENTES E INFORMACIÓN TECNOLÓGICA. SERVICIO DE BÚSQUEDAS
Paseo de la Castellana, 75 - 28071 MADRID (ESPAÑA). Tel.: 902.157.530. FAX: 91-457-25-86. http://www.oepm.es

✓ **NÚMERO DE ORDEN:** V1223

✓ **FECHA:** 26 de febrero de 2013

✓ **SOLICITANTE:** XXXXXX

✓ **TÍTULO:** Recubrimiento comestible a base de pectina con efectos anticancerigenos.

✓ **RESPONSABLE:** XXXXXX

✓ PERFIL DE BÚSQUEDA

- Clasificación Internacional de Patentes

A23P 1/08 Revestimiento de productos alimenticios; Productos de revestimiento
A23B 7/16 Conservación o maduración química de frutas o verduras.
. Recubrimiento con una capa protectora; Composiciones o aparatos al efecto.

- Clasificación Cooperativa de Patentes

A23P1/081 ..Coating with edible coating: Coating with oils or fats

- Palabras Clave

En INVENES: pectin, cáncer+, tumor+, proliferativ+, neoplasica, galectina, recubrimiento?, envasado?, película?.

En Bases Externas: pectin, cancer+, tumor+, tumour+, proliferative, neoplastic, neoplasic, galectin, coat+, pack+, film?.

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Resultado de la búsqueda

1. DOCUMENTOS ESPECIALMENTE RELACIONADOS CON EL OBJETO DE BÚSQUEDA

En este apartado se incluyen todos los documentos que se han considerado más próximos al perfil de búsqueda solicitado, seleccionados de entre todos los analizados.

- **Modelos de utilidad españoles, patentes españolas y solicitudes de patentes europeas y solicitudes PCT que designan España.**

  WO2012161836 (ECONUGENICS) 29.11.2012
  WO2012094030 (BETTER HEALTH PUBLISHIN INC.) 12.07.2012
  WO2005095463 (GLYCOGENESYS INC.) 13.10.2005
  WO0215715 (GOORHUIS J.G.M.) 28.02.2002
  WO0242484 (NUTRICIA NV.) 30.05.2002
  WO0247612 (MANNATECH INC) 20.06.2002
  WO9809537 (BEYER R.) 12.03.1998
  EP328317(TAKEDA CHEMICAL IND LTD.)16.08.1989
  WO9601640 (UNIVERS. WAYNE STATE) 25.01.1996
  WO9425493 (US SEC OF AGRIC) 10.11.1994

- **Patentes extranjeras.**
  CN101491275 (GUANGDONG FOOD MEDICINE VOCATI) 29.08.2009
  JP2001161285 (KAWANO) 19.06.2001
  US6258383 (COCKRUM R H)10.07.2001
  JP3076531 (KIBUN FOOD CHEMIPHAR KK) 02.04.1991

2. OTROS DOCUMENTOS DE INTERÉS

Incluidos en el Anexo 1 estos documentos reflejan el estado de la técnica en relación al objeto de búsqueda. Las referencias bibliográficas recuperadas incluyen un hipervínculo que permite el acceso al documento completo a través de las bases de datos de patentes INVENES y Espacenet.

El texto completo de los documentos japoneses posteriores a 1993 puede obtenerse en inglés directamente de la página Web de la Oficina de Patentes Japonesa, dentro de la Biblioteca Digital de Propiedad Industrial (IPDL) activando el correspondiente traductor automático. Basta con introducir en la base de datos PAJ (Patent Abstracts of Japan) el número de publicación del documento deseado y activar el botón una vez que se ha obtenido su correspondiente referencia bibliográfica en inglés. http://www19.ipdl.inpit.go.jp/PA1/cgi-bin/PA1INIT.

También puede obtenerse una traducción automática de los documentos chinos en: http://59.151.93.237/sipo_EN/search/tabSearch.do?method=init

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COMENTARIO

La finalidad de este informe es conocer la posible patentabilidad de la invención que se refiere a composiciones con efecto anticancerígeno que contienen pectina para el recubrimiento comestible de productos alimenticios. Como punto de partida se ha utilizado la memoria técnica aportada por el solicitante en la que se realiza una descripción general de la cuestión de interés sin detallar las características concretas de la composición.

La búsqueda documental se ha realizado utilizando bases de datos de patentes de cobertura internacional (WPI; EPODOC) y bases de datos de literatura científica, todas ellas accesibles a través del sistema EPOQUE de la Oficina Europea de Patentes (BIOSIS, MEDLINE, EMBASE, NPL, XPESP) (Ver anexos 2 y 3 para más información). También se ha consultado la base de datos de patentes en España INVENES.

Con la estrategia de búsqueda empleada se han recuperado más de 100 documentos. De todos ellos se ha consultado el título y el resumen y, los considerados más relevantes, se han analizado en profundidad.

Entre los documentos recuperados destacaremos tres tipos de documentos relativos a:

1. Recubrimientos comestibles con pectina.

CN101491275 (GUANGDONG FOOD MEDICINE VOCATI) Película comestible para la conservación de alimentos a base de una emulsión de pectina. Esta película es permeable al oxigeno, al dióxido de carbono y al vapor de agua y se puede aplicar a diferentes tipos de alimentos como frutas y vegetales.
WO0215715 (GOORHUIS J.G.M.) Recubrimiento comestible para salchichas que incluye pectina.
JP2001161285 (KAWANO) Recubrimiento comestible para pasteles y galletas a base de pectina.
WO9809537 (BEYER R.) Película comestible a base de pectina y caseína.
WO9425493 (US SEC OF AGRIC) Películas comestibles a base de pectina y almidón.
JP3076531 (KIBUN FOOD CHEMIPHAR KK) Recubrimiento de frutas peladas con gelatina, alginato de sodio o pectina.
EP328317 (TAKEDA CHEMICAL IND LTD.) Película comestible a base de curdlan y pectina.

2. Composiciones alimenticias o nutraceuticas que comprenden pectina con efectos preventivos o moduladores de los tumores.

WO0242484 (NUTRICIA NV.) Hidrolizados de pectina como moduladores de enfermedades tumorales (rev.20). Preparaciones dietéticas, productos lácteos, yogurt, cereales etc.…
US6258383 (COCKRUM R H) Suplemento alimenticio con lactoferrina y calostro que incluye también pectina cítrica modificada. Protección contra el cáncer.
WO0247612 (MANNATECH INC) Suplemento alimenticio que incluye lactoferrina, pectina y p-glucano que inhibe y previene los tumores.

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3. Composiciones farmacéuticas que comprenden pectina para el tratamiento de tumores:

WO2012094030 (BETTER HEALTH PUBLISHIN INC.) Composición sinérgica de honokiol y pectina que se une a galectina 3 en las superficie de las células cancerígenas inhibiendo el cáncer. Para administración principalmente por vía oral.
WO2012161836 (ECONUGENICS) Composición a base de pectina que reduce los niveles de galectina 3, inhibiendo la formación y progreso del cáncer. De administración oral o intravenosa.
WO2005095463 (GLYCOGENESYS INC.) Pectina modificada inhibidora de la proliferación celular para el tratamiento de cáncer de estomago o gastrointestinal. Composiciones para aplicación vía oral.
WO9601640 (UNIVERS. WAYNE STATE) Inhibición de metástasis de cáncer de próstata mediante la administración de pectina modificada. Administración oral.

A la vista de los documentos anteriormente mencionados, podríamos concluir que son conocidas la composiciones alimenticias y nutraceuticas que comprenden pectina con efectos anticancerígenos por lo que sería de esperar, para un experto en la materia, que la ingestión de la misma formando parte de películas comestibles, también conocidas tuviese un efecto similar.

Si el solicitante desea aportar **información más concreta** sobre la invención, por ejemplo, que la utilización de una determinada pectina o un procedimiento para recubrir un determinado producto alimenticio, presentara un efecto inesperado, y en especial si ésta se estructura en forma de **reivindicaciones**, que son las que delimitan la protección que otorga una patente, en un nuevo Informe se podría realizar una comparación detallada de esa tecnología concreta con el Estado de la Técnica relevante y valorar posible actividad inventiva de la invención.

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Se adjuntan los siguientes Anexos:

ANEXO 1. Listado de referencias

A) Base de Datos BIOSIS

B) Base de Datos WPI

C) Base de Datos INVENES

ANEXO 2. Bases de datos utilizadas.

ANEXO 3. Códigos de las bases de datos.

ANEXO 4. Abreviaturas de países.

ANEXO 5. Glosario de términos de propiedad industrial.

NOTA: El presente Informe se ha realizado con el máximo rigor, de acuerdo con una metodología consolidada y tratando de ceñirse estrechamente a las necesidades del solicitante. Este Informe ***no vincula*** *a la OEPM en lo que se refiere a los resultados que puedan obtenerse de una subsiguiente solicitud formal de registro en alguna de las modalidades de propiedad industrial*

Le informamos que puede obtener deducciones fiscales por actividades de investigación, desarrollo e innovación tecnológica. En caso de que el objeto de su proyecto se corresponda con el de un Informe Tecnológico de Patentes (ITP) realizado por la OEPM, podrá aportarlo a la entidad certificadora acreditada por ENAC para la realización de informes técnicos relacionados con los informes motivados vinculantes que establece el Real Decreto 1432/2003 de 21 de noviembre, teniendo esta el compromiso de realizarle un descuento fijo equivalente al 50% del precio del Informe Tecnológico de Patentes. (Convenio de colaboración suscrito entre el Ministerio de Ciencia e Innovación, la Oficina Española de Patentes y Marcas y las Entidades certificadoras) Más información

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ANEXO 1. Listado de referencias

A) Base de Datos BIOSIS

1/12 - (C) BIOSIS / BIOSIS
AN - PREV201300168155
TI - Galectin 3-beta-galactobiose interactions
*IW - ** Major Concepts **
Biochemistry and Molecular Biophysics; Methods and Techniques
*- ** Diseases **
cancer: neoplastic disease
*- ** Chemicals and Biochemicals **
galectin-3: phase II clinical trial; beta-galactobiose: phase II clinical trial; modified citrus pectin: antineoplastic-drug, phase II clinical trial, phase I clinical trial, efficacy
*AW - ** Methods and Equipment **
force spectroscopy, laboratory techniques, spectrum analysis techniques
*- ** Alternate Indexing **
Neoplasms (MeSH)
*- ** Miscellaneous Descriptors **
carbohydrate-protein interaction; off-rate dissociation constant
AU - Gunning A P; Pin C; Morris V J
AUAF- Inst Food Res, Norwich Res Pk, Norwich NR4 7UA, Norfolk, UK; vic.morris@ifr.ac.uk
PUB - Carbohydrate Polymers
- JAN 30 2013
LNKD- doi:10.1016/j.carbpol.2012.08.104
IRN - ISSN 0144-8617(print)
- ISSN 1879-1344(electronic)
VOL - 92
NR - 1
PG - 529-533
PD - 2013-01-00
DT - Article
LA - English
AB - Force spectroscopy has been used to investigate the interaction between the disaccharide beta-galactobiose and the pro-metastatic regulatory protein galectin-3 (Gal3). The studies revealed specific interactions characterised by an off-rate dissociation constant k(off) = 0.33 s(-1) and interaction distance x=0.2 nm at zero applied force. These data suggest a lifetime for the interaction of 3.0 s. The results are consistent with the hypothesis that oral consumption of modified citrus pectin controls cancer metastasis by inhibiting the role of Gal3. The modification is considered to facilitate binding of pectin-derived galactan sidechains to Gal3 and inhibition of the roles of Gal3 as a pro-metastatic regulatory protein. (C) 2012 Elsevier Ltd. All rights reserved.
PCC - 10060, Biochemistry studies - General
12512, Pathology - Therapy
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
URL - http://www.journals.elsevier.com/carbohydrate-polymers/#description

2/12 - (C) BIOSIS / BIOSIS
AN - PREV201200492442
TI - Analysis of the neutral polysaccharide fraction of MCP and its inhibitory activity on galectin-3
*IW - ** Major Concepts **
Biochemistry and Molecular Biophysics
*- ** Chemicals and Biochemicals **
alpha-L-arabinofuranosidase: toxin, insecticide, pesticide; type I arabinogalactan: pesticide, insecticide; pH-modified citrus pectin-N:

nutrient; galectin-3: vaccine, inhibition; pH-modified citrus pectin-A: nutrient
*AW - ** Methods and Equipment **
DEAE-cellulose column chromatography, laboratory techniques, chromatographic techniques; Sepharose CL-6B chromatography, laboratory techniques, chromatographic techniques*
AU - Gao Xiaoge; Zhi Yuan; Zhang Tao; Xue Huiting; Wang Xiao; Foday Anthony D; Tai Guihua; Zhou Yifa
AUAF- NE Normal Univ, Sch Life Sci, 5268 Renmin St, Changchun 130024, Peoples R China; taigh477@nenu.edu.cn, zhouyf383@nenu.edu.cn
PUB - Glycoconjugate Journal
- MAY 2012
LNKD- doi:10.1007/s10719-012-9382-5
IRN - ISSN 0282-0080(print)
- ISSN 1573-4986(electronic)
VOL - 29
NR - 4
PG - 159-165
PD - 2012-05-00
DT - Article
LA - English
AB - The pH-modified citrus pectin (MCP) has been demonstrated to inhibit galectin-3 in cancer progression. The components and structures of MCP related to this inhibition remained unknown. In this paper, we fractionated MCP on DEAE-cellulose column into a homogenous neutral fraction MCP-N (about 20 kDa) and a pectin mixture fraction MCP-A (wide molecular distribution on Sepharose CL-6B chromatography). Both MCP-N and MCP-A inhibited hemagglutination mediated by galectin-3 with minimum inhibition concentration (MIC) 625 and 0.5 mu g/ml, respectively. MCP-N was identified to be a type I arabinogalactan (AG-I) with a main chain of beta-1 -> 4-galactan. MCP-N was digested by alpha-L-arabinofuranosidase to give its main chain structure fraction (M-galactan, around 18 kDa), which was more active than the original molecule, MIC 50 mu g/ml. The acidic degradation of M-galactan increased the inhibitory activity, MIC about 5 times lower than M-galactan. These results above showed that the functional motif of the beta-1 -> 4-galactan fragment might lie in the terminal residues rather than in the internal region of the chain. Therefore, MCP-N and its degraded products might be developed to new potential galectin-3 inhibitors. This is the first report concerning the fractionation of MCP and its components on galectin-3 inhibition. The information provided in this paper is valuable for screening more active galectin-3 inhibitors from natural polysaccharides.
RN - 9067-74-7 (alpha-L-arabinofuranosidase); EC 3.2.1.55 (alpha-L-arabinofuranosidase)
PCC - 10060, Biochemistry studies - General
URL - http://www.springerlink.com/content/100131/

3/12 - (C) BIOSIS / BIOSIS
AN - PREV201200174763
TI - Bioactive galactans
*IW - ** Major Concepts **
Biochemistry and Molecular Biophysics; Pharmacognosy (Pharmacology) ; Tumor Biology*
*- ** Diseases **
cancer: neoplastic disease*
*- ** Organisms **
(Plantae): plant: medicinal plant*
*- ** Taxanotes **
Plants*
*- ** Super Taxa **
Plantae*
*- ** Chemicals and Biochemicals **
arabinogalactans: vaccine; modified citrus pectin [MCP]:*

antineoplastic-drug, pollutant; pectin fragments: clinical trial; mammalian lectin galectin 3 [mammalian Gal3]: vaccine; pectin-derived galactans: air pollutant, pollutant
*AW - ** Alternate Indexing ***
Neoplasms (MeSH)
*- ** Miscellaneous Descriptors ***
angiogenesis; cell apoptosis; cell attachment; processed food; emboli formation
AU - Morris Victor J; Gunning Allan P; Bongaerts Roy J M
AUAF- AFRC, Inst Food Res, Dept Imaging, Norwich NR4 7UA, Norfolk, UK
PUB - Abstracts of Papers American Chemical Society
- MAR 21 2010
IRN - ISSN 0065-7727
VOL - 239
PG - 7-CELL
CONF- 239th National Meeting of the American-Chemical-Society; San Francisco, CA, USA; March 21 -25, 2010
PD - 2010-03-00
DT - Meeting, Meeting Abstract
LA - English
PBC - 11000
PCC - 00520, General biology - Symposia, transactions and proceedings
10060, Biochemistry studies - General
12512, Pathology - Therapy
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
51522, Plant physiology - Chemical constituents
54000, Pharmacognosy and pharmaceutical botany

4/12 - (C) BIOSIS / BIOSIS
AN - PREV201100689659
TI - Integrative medicine and the role of modified citrus pectin and poly botanicals in cancer prevention and treatment
*IW - ** Major Concepts ***
Pharmacognosy (Pharmacology) ; Oncology (Human Medicine, Medical Sciences) ; Urology (Human Medicine, Medical Sciences) ; Gynecology (Human Medicine, Medical Sciences)
*- ** Diseases ***
breast cancer: neoplastic disease, reproductive system disease/female, drug therapy; prostate cancer: urologic disease, reproductive system disease/male, neoplastic disease, drug therapy
*- ** Organisms ***
(Hominidae): human
*- ** Taxanotes ***
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
*- ** Super Taxa ***
Primates, Mammalia, Vertebrata, Chordata, Animalia
*- ** Chemicals and Biochemicals ***
prostate-specific antigen [PSA]: phase III clinical trial, phase I clinical trial, phase II clinical trial; galectin-3: food contaminant; Honokiol: antineoplastic-drug, agrichemical, fertilizer; modified citrus pectin [MCP]: antineoplastic-drug, pesticide
*AW - ** Methods and Equipment ***
combination drug therapy, therapeutic and prophylactic techniques, clinical techniques; drug monotherapy, therapeutic and prophylactic techniques, clinical techniques
*- ** Alternate Indexing ***
Breast Neoplasms (MeSH); Prostatic Neoplasms (MeSH)
*- ** Miscellaneous Descriptors ***
integrative medicine
AU - Eliaz Isaac
AUAF- Amitabha Med Clin and Healing Ctr, Sebastopol, CA USA; ieliaz@sonic.net
PUB - International Journal of Molecular Medicine
- 2011

IRN - ISSN 1107-3756(print)
- ISSN 1791-244X(electronic)
VOL - 28
NR - Suppl. 1
PG - S23
CONF- 16th World Congress on Advances in Oncology/14th International Symposium on Molecular Medicine; Rhodes, GREECE; October 06 -08, 2011
PD - 2011-00-00
DT - Meeting, Meeting Abstract
LA - English
RN - EC 3.4.21.77 (prostate-specific antigen)
PBC - 86215
PCC - 00520, General biology - Symposia, transactions and proceedings
10064, Biochemistry studies - Proteins, peptides and amino acids
12512, Pathology - Therapy
15506, Urinary system - Pathology
16506, Reproductive system - Pathology
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
54000, Pharmacognosy and pharmaceutical botany

5/12 - (C) BIOSIS / BIOSIS
AN - PREV201100040914
TI - Calpain activation through galectin-3 inhibition sensitizes prostate cancer cells to cisplatin treatment
*IW - ** Major Concepts **
Pharmacology; Biochemistry and Molecular Biophysics; Tumor Biology; Reproductive System (Reproduction)*
*- ** Diseases **
prostate cancer: urologic disease, reproductive system disease/male, neoplastic disease, drug therapy*
*- ** Organisms **
(Hominidae): LNCaP cell line: human prostate cancer cells; PC3 cell line: human prostate cancer cells*
*- ** Taxanotes **
Animals, Chordates, Humans, Mammals, Primates, Vertebrates*
*- ** Super Taxa **
Primates, Mammalia, Vertebrata, Chordata, Animalia*
*- ** Chemicals and Biochemicals **
cisplatin: antineoplastic-drug, toxin, carcinogen, pollutant, air pollutant; androgen receptor: clinical trial; siRNA: clinical trial; calpain: clinical trial, activation, calcium-dependent protease; galectin-3: clinical trial, antiapoptotic molecule; Gal-3: toxin, carcinogen, expression, inhibition; GCS-100/modified citrus pectin: pharmaceutical adjunct-drug, clinical trial; anti-Gal-3 drug: antineoplastic-drug, toxin, nephrotoxin, cytotoxin*
*AW - ** Methods and Equipment **
chemotherapy, therapeutic and prophylactic techniques, clinical techniques; combination drug therapy, therapeutic and prophylactic techniques, clinical techniques*
*- ** Alternate Indexing **
Prostatic Neoplasms (MeSH)*
*- ** Miscellaneous Descriptors **
apoptosis*
AU - Wang Y; Nangia-Makker P; Balan V; Hogan V; Raz A
AUAF- Wayne State Univ, Sch Med, Karmanos Canc Inst, Dept Pathol Tumor Progress and Metastasis, 110 E Warren Ave, Detroit, MI 48201 USA; raza@karmanos.org
PUB - Cell Death & Disease
- NOV 2010
LNKD- doi:10.1038/cddis.2010.79
IRN - ISSN 2041-4889
VOL - 1
PG - Article No.: e101

PD - 2010-11-00
DT - Article
LA - English
AB - Prostate cancer will develop chemoresistance following a period of chemotherapy. This is due, in part, to the acquisition of antiapoptotic properties by the cancer cells and, therefore, development of novel strategies for treatment is of critical need. Here, we attempt to clarify the role of the antiapoptotic molecule galectin-3 in prostate cancer cells using siRNA and antagonist approaches. The data showed that Gal-3 inhibition by siRNA or its antagonist GCS-100/modified citrus pectin (MCP) increased cisplatin-induced apoptosis of PC3 cells. Recent studies have indicated that cisplatin-induced apoptosis may be mediated by calpain, a calcium-dependent protease, as its activation leads to cleavage of androgen receptor into an androgen-independent isoform in prostate cancer cells. Thus, we examined whether calpain activation is associated with the Gal-3 function of regulating apoptosis. Here, we report that Gal-3 inhibition by siRNA or GCS-100/MCP enhances calpain activation, whereas Gal-3 overexpression inhibits it. Inhibition of calpain using its inhibitor and/or siRNA attenuated the proapoptotic effect of Gal-3 inhibition, suggesting that calpain activation may be a novel mechanism for the proapoptotic effect of Gal-3 inhibition. Thus, a paradigm shift for treating prostate cancer is suggested whereby a combination of a non-toxic anti-Gal-3 drug together with a toxic chemotherapeutic agent could serve as a novel therapeutic modality for chemoresistant prostate cancers. Cell Death and Disease (2010) 1, e101; doi:10.1038/cddis.2010.79; published online 18 November 2010
RN - 15663-27-1 (cisplatin); 78990-62-2 (calpain)
PBC - 86215
PCC - 02508, Cytology - Human
10060, Biochemistry studies - General
10064, Biochemistry studies - Proteins, peptides and amino acids
10802, Enzymes - General and comparative studies: coenzymes
12512, Pathology - Therapy
15506, Urinary system - Pathology
16504, Reproductive system - Physiology and biochemistry
16506, Reproductive system - Pathology
22002, Pharmacology - General
22005, Pharmacology - Clinical pharmacology
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
URL - www.nature.com/cddis

6/12 - (C) BIOSIS / BIOSIS
AN - PREV200700552557
TI - Pectin induces apoptosis in human prostate cancer cells: correlation of apoptotic function with pectin structure
*IW - ** Major Concepts **
Tumor Biology; Biochemistry and Molecular Biophysics; Reproductive System (Reproduction)*
*- ** Diseases **
prostate cancer: urologic disease, reproductive system disease/male, neoplastic disease, therapy*
*- ** Parts, Structures, Systems of Organisms **
cell wall*
*- ** Organisms **
(Hominidae): HUVEC cell line: human umbilical vein endothelial cells; LNCaP cell line: human prostate cancer cells; LNCaP C4-2 cell line: human prostate cancer cells*
- (Rutaceae): Citrus: medicinal plant, tropical/subtropical fruit crop
*- ** Taxanotes **
Animals, Chordates, Humans, Mammals, Primates, Vertebrates; Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants*

*- ** Super Taxa **
Primates, Mammalia, Vertebrata, Chordata, Animalia; Dicotyledones, Angiospermae, Spermatophyta, Plantae*
*- ** Chemicals and Biochemicals **
poly(ADP-ribose) polymerase: nutrient; caspase-3: nutrient, activation; pectin: food contaminant; androgens: nutrient; endopolygalacturonase: toxin; pectinmethylesterase: toxin; homogalacturonan oligosaccharide: food contaminant; rhamnogalacturonan-I: toxin; rhamnogalacturonan-II: food contaminant; galacturonosyl carboxymethylester: food contaminant; fractionated pectin powder: food contaminant, apoptotic activity; citrus pectin: carcinogen, apoptotic activity; PectaSol: nutrient, apoptotic activity, pH-modified citrus pectin*
*AW - ** Methods and Equipment **
apoptosense assay, laboratory techniques*
*- ** Alternate Indexing **
Prostatic Neoplasms (MeSH)*
*- ** Miscellaneous Descriptors **
apoptosis; disease progression; structural complexity; heat treatment; androgen-responsive cell; androgen-insensitive cell*
AU - Jackson Crystal L; Dreaden Tina M; Theobald Lisa K; Tran Nhien M; Beal Tiffany L; Eid Manal; Gao Mu Yun; Shirley Robert B; Stoffel Mark T; Kumar M Vijay; Mohnen Debra
AUAF- Univ Georgia, Complex Carbohydrate Res Ctr, 220 Riverbend Rd, Athens, GA 30602 USA; dmohnen@ccrc.uga.edu
PUB - Glycobiology
- AUG 2007
LNKD- doi:10.1093/glycob/cwm054
IRN - ISSN 0959-6658
VOL - 17
NR - 8
PG - 805-819
PD - 2007-08-00
DT - Article
LA - English
AB - Treatment options for androgen-independent prostate cancer cells are limited. Therefore, it is critical to identify agents that induce death of both androgen-responsive and androgen-insensitive cells. Here we demonstrate that a product of plant cell walls, pectin, is capable of inducing apoptosis in androgen-responsive (LNCaP) and androgen-independent (LNCaP C4-2)) human prostate cancer cells. Commercially available fractionated pectin powder (FPP) induced apoptosis (approximately 40-fold above non-treated cells) in both cell lines as determined by the Apoptosense assay and activation of caspase-3 and its substrate, poly(ADP-ribose) polymerase. Conversely, citrus pectin (CP) and the pH-modified CP, PectaSol, had little or no apoptotic activity. Glycosyl residue composition and linkage analyses revealed no significant differences among the pectins. Mild base treatment to remove ester linkages destroyed FPP's apoptotic activity and yielded homogalacturonan (HG) oligosaccharides. The treatment of FPP with pectinmethylesterase to remove galacturono-syl carboxymethylesters and/or with endopolygalacturonase to cleave nonmethylesterified HG caused no major reduction in apoptotic activity, implicating the requirement for a base-sensitive linkage other than the carboxymethylester. Heat treatment of CP (HTCP) led to the induction of significant levels of apoptosis comparable to FPP, suggesting a means for generating apoptotic pectic structures. These results indicate that specific structural elements within pectin are responsible for the apoptotic activity, and that this structure can be generated, or enriched for, by heat treatment of CP. These findings provide the foundation for mechanistic studies of pectin apoptotic activity and a basis for the development of pectin-based pharmaceuticals, nutraceuticals, or recommended diet changes aimed at combating prostate cancer occurrence and progression.

RN - 9055-67-8 (poly(ADP-ribose) polymerase); 169592-56-7 (caspase-3); 9000-69-5 (pectin); 9032-75-1 (endopolygalacturonase); 9025-98-3 (pectinmethylesterase); EC 2.4.2.30 (poly(ADP-ribose) polymerase); EC 3.2.1.15 (endopolygalacturonase)
PBC - 86215 26685
PCC - 02508, Cytology - Human
10060, Biochemistry studies - General
10068, Biochemistry studies - Carbohydrates
10802, Enzymes - General and comparative studies: coenzymes
12512, Pathology - Therapy
15506, Urinary system - Pathology
16504, Reproductive system - Physiology and biochemistry
16506, Reproductive system - Pathology
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
51512, Plant physiology - Reproduction
51522, Plant physiology - Chemical constituents
53004, Horticulture - Tropical, subtropical fruits and plantation crops

7/12 - (C) BIOSIS / BIOSIS
AN - PREV200700250411
TI - The health benefits of modified citrus pectin
*IW - ** Major Concepts **
Nutrition; Pharmacognosy (Pharmacology)
- ** Organisms **
(Hominidae): human
- (Rutaceae): citrus: medicinal plant
- ** Taxanotes **
Animals, Chordates, Humans, Mammals, Primates, Vertebrates; Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
- ** Super Taxa **
Primates, Mammalia, Vertebrata, Chordata, Animalia; Dicotyledones, Angiospermae, Spermatophyta, Plantae
- ** Chemicals and Biochemicals **
modified citrus pectin: dietary supplement*
AU - Eliaz Isaac; Guardino John; Hughes Kerry; Brodbelt JS
AUAF- Amitabha Med Clin and Healing Ctr, 7064 Corline Court,Suite A, Sebastopol, CA 95472 USA
*PUB - ACS Symposium Series
- 2006
- AMER CHEMICAL SOC, 1155 SIXTEENTH ST NW, WASHINGTON, DC 20036 USA
- Series : ACS SYMPOSIUM SERIES (ISSN 0097-6156(print))*
IRN - ISBN 0-8412-3957-6(H)
PG - 199-210
CONF- 228th National Meeting of the American-Chemical-Society; Philadelphia, PA, USA; August 22 -26, 2004
ED - Patil BS; Turner ND; Miller EG
PD - 2006-00-00
DT - Book Chapter, Meeting
LA - English
AB - Modified citrus pectin (MCP) is a dietary supplement derived from citrus pectin, which has been modified to produce a product of low molecular weight and low esterification. In contrast, extracted, unmodified citrus pectin contains molecules of many varying lengths and is highly esterified. Fragmented pectin of low molecular weight is more readily absorbed into the blood stream. Dietary supplement grade MCP is designed to provide these more absorbable pectins in order to deliver greater health benefits. Although clinical indications and effectiveness of MCP is still being studied, recent research suggests that MCP may have significant health benefits. In vitro, animal studies and human clinical trials have demonstrated applications in the prevention and treatment of cancer in reducing solid tumor growth, metastasis, and angiogenesis. Recent research also indicates that MCP may play an important therapeutic role as a chelator of heavy metals.

The health benefits, including clinical indications, preclinical research, clinical data, dosage and safety of MCP are discussed in this review.
PBC - 86215 26685
PCC - 13202, Nutrition - General studies, nutritional status and methods
51504, Plant physiology - Nutrition
54000, Pharmacognosy and pharmaceutical botany

8/12 - (C) BIOSIS / BIOSIS
AN - PREV200510259749
TI - Modified citrus pectin and cancer.
*IW - ** Major Concepts **
Tumor Biology; Biochemistry and Molecular Biophysics*
*- ** Diseases **
cancer: neoplastic disease, etiology*
*- ** Chemicals and Biochemicals **
glycoproteins: toxin; glycolipids: pesticide; citrus pectin: toxin; galectin-3: vaccine*
*AW - ** Alternate Indexing **
Neoplasms (MeSH)*
*- ** Miscellaneous Descriptors **
angiogenesis; cell recognition; cell-recognition*
AU - Raz Avraham; Nangia-Makker Pratima
AUAF- Wayne State Univ, Detroit, MI 48201 USA; raza@karmanos.org
PUB - Abstracts of Papers American Chemical Society
- MAR 13 2005
IRN - ISSN 0065-7727
VOL - 229
NR - Part 1
PG - U303
CONF- 229th National Meeting of the American-Chemical-Society; San Diego, CA, USA; March 13 -17, 2005
PD - 2005-03-00
DT - Meeting, Meeting Abstract
LA - English
PCC - 00520, General biology - Symposia, transactions and proceedings
10060, Biochemistry studies - General
10064, Biochemistry studies - Proteins, peptides and amino acids
10066, Biochemistry studies - Lipids
24004, Neoplasms - Pathology, clinical aspects and systemic effects

9/12 - (C) BIOSIS / BIOSIS
AN - PREV200400388061
PN - US6780438 B 20040824
TI - Dietary supplement comprising colostrum and citrus pectin
*IW - ** Major Concepts **
Methods and Techniques; Nutrition*
*- ** Chemicals and Biochemicals **
colostrum-citrus pectin dietary supplement: dietary supplement*
*AW - ** Methods and Equipment **
dietary supplement preparation, laboratory techniques*
IN - Gohlke Marcus B; Cockrum Richard H
PA - Lactoferrin Products Company
PUB - Official Gazette of the United States Patent and Trademark Office Patents
- Aug. 24, 2004
IRN - ISSN 0098-1133 (ISSN print)
VOL - 1285
NR - 4
PD - 2004-08-24
DT - Patent
LA - English
AB - A dietary supplement for mammalian consumption, and particularly human consumption, for the purpose of stimulating the immune system,

inhibiting infection and increasing tissue repair and healing. Comprising colostrum, lactoferrin, and with modified citrus pectin as an optional component, the dietary supplement is administered in `mucosal delivery format`: a dosage form that promotes effective absorption through the lining of the oral cavity.
PCC - 13202, Nutrition - General studies, nutritional status and methods
URL - http://www.uspto.gov/web/menu/patdata.html

10/12 - (C) BIOSIS / BIOSIS
AN - PREV200300042063
PN - US6475511 B 20021105
TI - Dietary supplement combining colostrum and lactoferrin in a mucosal delivery format
*IW - ** Major Concepts **
Nutrition
- ** Diseases **
infection: infectious disease
- ** Chemicals and Biochemicals **
colostrum: pesticide; lactoferrin: food contaminant, fungicide; modified citrus pectin: pollutant, toxin, water pollutant, soil pollutant*
*AW - ** Alternate Indexing **
Infection (MeSH)
- ** Miscellaneous Descriptors **
dietary supplement; immune system stimulation; tissue repair*
IN - Gohlke Marcus B; Cockrum Richard H
PA - Lactoferrin Products Company
*PUB - Official Gazette of the United States Patent and Trademark Office Patents
- Nov. 5, 2002*
IRN - ISSN 0098-1133 (ISSN print)
VOL - 1264
NR - 1
PD - 2002-11-05
DT - Patent
LA - English
AB - A dietary supplement for mammalian consumption, and particularly human consumption, for the purpose of stimulating the immune system, inhibiting infection and increasing tissue repair and healing. Comprising colostrum, lactoferrin, and with modified citrus pectin as an optional component, the dietary supplement is administered in `mucosal delivery format`: a dosage form that promotes effective absorption through the lining of the oral cavity.
*PCC - 10064, Biochemistry studies - Proteins, peptides and amino acids
13202, Nutrition - General studies, nutritional status and methods
36001, Medical and clinical microbiology - General and methods*
URL - http://www.uspto.gov/web/menu/patdata.html

11/12 - (C) BIOSIS / BIOSIS
AN - PREV200300028917
TI - Inhibition of human cancer cell growth and metastasis in nude mice by oral intake of modified citrus pectin.
*IW - ** Major Concepts **
Pharmacognosy (Pharmacology) ; Tumor Biology
- ** Diseases **
cancer: neoplastic disease; tumor: neoplastic disease
- ** Parts, Structures, Systems of Organisms **
mammary fat pad: reproductive system
- ** Organisms **
(Hominidae): MDA-MB-435 cell line: human breast carcinoma cells; LSLiM6 cell line: human colon carcinoma cells; HUVEC cell line: human umbilical vein endothelial cells
- (Muridae): mouse: nude, animal model, strain-NCR nu/nu
- ** Taxanotes **

Animals, Chordates, Humans, Mammals, Primates, Vertebrates; Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
*- ** Super Taxa ***
Primates, Mammalia, Vertebrata, Chordata, Animalia; Rodentia, Mammalia, Vertebrata, Chordata, Animalia
*- ** Chemicals and Biochemicals ***
modified citrus pectin: antineoplastic-drug, teratogen, oral administration; galectin-3: dietary supplement; carbohydrate: neurotoxin, toxin
*AW - ** Methods and Equipment ***
two-sided Student's t test, mathematical and computer techniques
*- ** Alternate Indexing ***
Neoplasms (MeSH); Neoplasms (MeSH)
*- ** Miscellaneous Descriptors ***
cell growth, inhibition; metastasis; angiogenesis
AU - Nangia-Makker Pratima; Hogan Victor; Honjo Yuichiro; Baccarini Sara; Tait Larry; Bresalier Robert; Raz Avraham
AUAF- 110 E. Warren Ave., Detroit, MI, 48201, USA; raza@kci.wayne.edu
PUB - Journal of the National Cancer Institute (Bethesda)
- December 18, 2002
IRN - ISSN 0027-8874 (ISSN print)
VOL - 94
NR - 24
PG - 1854-1862
PD - 2002-12-18
DT - Article
LA - English
AB - Background: The role of dietary components in cancer progression and metastasis is an emerging field of clinical importance. Many stages of cancer progression involve carbohydrate-mediated recognition processes. We therefore studied the effects of high pH- and temperature-modified citrus pectin (MCP), a nondigestible, water-soluble polysaccharide fiber derived from citrus fruit that specifically inhibits the carbohydrate-binding protein galectin-3, on tumor growth and metastasis in vivo and on galectin-3-mediated functions in vitro. Methods: In vivo tumor growth, angiogenesis, and metastasis were studied in athymic mice that had been fed with MCP in their drinking water and then injected orthotopically with human breast carcinoma cells (MDA-MB-435) into the mammary fat pad region or with human colon carcinoma cells (LSLiM6) into the cecum. Galectin-3-mediated functions during tumor angiogenesis in vitro were studied by assessing the effect of MCP on capillary tube formation by human umbilical vein endothelial cells (HUVECs) in Matrigel. The effects of MCP on galectin-3-induced HUVEC chemotaxis and on HUVEC binding to MDA-MB-435 cells in vitro were studied using Boyden chamber and labeling assays, respectively. The data were analyzed by two-sided Student's t test or Fisher's protected least-significant-difference test. Results: Tumor growth, angiogenesis, and spontaneous metastasis in vivo were statistically significantly reduced in mice fed MCP. In vitro, MCP inhibited HUVEC morphogenesis (capillary tube formation) in a dose-dependent manner. In vitro, MCP inhibited the binding of galectin-3 to HUVECs: At concentrations of 0.1% and 0.25%, MCP inhibited the binding of galectin-3 (10 mug/mL) to HUVECs by 72.1% (P = .038) and 95.8% (P = .025), respectively, and at a concentration of 0.25% it inhibited the binding of galectin-3 (1 mug/mL) to HUVECs by 100% (P = .032). MCP blocked chemotaxis of HUVECs toward galectin-3 in a dose-dependent manner, reducing it by 68% at 0.005% (P<.001) and inhibiting it completely at 0.1% (P<.001). Finally, MCP also inhibited adhesion of MDA-MB-435 cells, which express galectin-3, to HUVECs in a dose-dependent manner. Conclusions: MCP, given orally, inhibits carbohydrate-mediated tumor growth, angiogenesis, and metastasis in vivo, presumably via its effects on galectin-3 function. These data stress the importance of dietary carbohydrate compounds as agents for

the prevention and/or treatment of cancer.
PBC - 86215 86375
PCC - 10068, Biochemistry studies - Carbohydrates
12512, Pathology - Therapy
16504, Reproductive system - Physiology and biochemistry
24004, Neoplasms - Pathology, clinical aspects and systemic effects
24008, Neoplasms - Therapeutic agents and therapy
54000, Pharmacognosy and pharmaceutical botany

12/12 - (C) BIOSIS / BIOSIS
AN - PREV200200423668
PN - US6410058 B 20020625
TI - Methods of use for dietary compositions comprising lactoferrin and colostrum
*IW - ** Major Concepts **
Nutrition; Pharmacognosy (Pharmacology)
- ** Diseases **
infection: infectious disease, diet therapy
- ** Chemicals and Biochemicals **
dietary compositions comprising lactoferrin and colostrum: antiinfective-drug, immunologic-drug, immunostimulant-drug, optional modified citrus pectin*
*AW - ** Alternate Indexing **
Infection (MeSH)
- ** Miscellaneous Descriptors **
increasing tissue repair and healing*
IN - Gohlke Marcus B; Cockrum Richard H
AUAF- 12302 Astoria Blvd., Houston, TX, 77089, USA
*PUB - Official Gazette of the United States Patent and Trademark Office Patents
- June 25, 2002*
IRN - ISSN 0098-1133
VOL - 1259
NR - 4
PD - 2002-06-25
DT - Patent
LA - English
AB - A dietary supplement for mammalian consumption, and particularly human consumption, for the purpose of stimulating the immune system, inhibiting infection and increasing tissue repair and healing. Comprising colostrum, lactoferrin, and with modified citrus pectin as an optional component, the dietary supplement is administered in `mucosal delivery format`: a dosage form that promotes effective absorption through the lining of the oral cavity.
PCC - 13202, Nutrition - General studies, nutritional status and methods
12512, Pathology - Therapy
22018, Pharmacology - Immunological processes and allergy
36001, Medical and clinical microbiology - General and methods
38502, Chemotherapy - General, methods and metabolism
54000, Pharmacognosy and pharmaceutical botany
URL - http://www.uspto.gov/web/menu/patdata.html

DEPARTAMENTO DE PATENTES E INFORMACIÓN TECNOLÓGICA. SERVICIO DE BÚSQUEDAS
Paseo de la Castellana, 75 - 28071 MADRID (ESPAÑA). Tel.: 902.157.530. FAX: 91-457-25-86. http://www.oepm.es

B) Base de Datos WPI

1/31 - (C) WPI / Thomson
PN - US2012171228 A1 20120705 DW201247
WO2012094030 A1 20120712 DW201247
TI - Inhibiting cancer in a mammal, comprises administering a synergistic amount of honokiol and a polyuronide exhibiting the ability to bind galectin 3 on the surface of cancer cells for a period of time sufficient to inhibit the cancer
AB - NOVELTY :
Inhibiting cancer in a mammal, comprises administering a synergistic amount of honokiol (HNK) and a polyuronide exhibiting the ability to bind galectin 3 (Gal3) on the surface of cancer cells for a period of time sufficient to inhibit the cancer.
- DETAILED DESCRIPTION :
An INDEPENDENT CLAIM is included for a composition of matter comprising an amount of HNK and an amount of MCP in amounts which, when administered to a mammal, provides a synergistic degree of cancer inhibition in excess of the inhibitory effects achieved by the administration of HNK or modified citrus pectin (MCP) alone.
- ACTIVITY :
Cytostatic.
- MECHANISM OF ACTION :
Galectin 3 inhibitor.
- USE :
The method is useful for inhibiting cancer (including liver cancer, prostate cancer, breast cancer, colorectal cancer, stomach cancer, esophageal cancer, lung cancer, nasopharyngeal cancer, thyroid cancer, ovarian cancer, uterine cancer, multiple myeloma, leukemia, lymphoma, melanoma, sarcoma, ovarian, uterine, thyroid, brain, and kidney cancer) in a mammal, where the cancer exhibits Gal3 protein on its surface, is characterized by a solid tumor and is a non-solid tumor cancer characterized by Gal3 protein bindable by MCP, and the inhibition comprises suppressing cancer formation, retarding cancer progression, inhibiting transformation of a primary cancer to a metastatic cancer, and inhibiting the spread of metastatic cancer (all claimed). Test details are described but no results given.
- ADVANTAGE :
The HNK and MCP are non-toxic and exhibit synergistic effect to treat cancer.
- PHARMACEUTICALS :
Preferred Method: The administration is accompanied by administration of an agent established to have anticancer effectiveness at a given level. The agent is administered at a level i.e. below a level where the agent may be toxic to the mammal, but is effective in further inhibiting cancer when administered with a synergistic combination of HNK and MCP. Preferred Components: The polyuronide is water soluble modified pectin or alginate of under forty thousand Daltons molecular weight which exhibits partially esterified galacturonic acid moieties to affect the binding to Gal3, preferably MCP. The polyuronide comprises at least MCP and one other polyuronide which binds to Gal3. The agent is a chemotherapeutic agent. The agent comprises anticancer radiation therapy, or an immunotherapy or biologic anticancer therapy.
- ADMINISTRATION :
Administration of HNK and MCP is 5-500 or 10-500 mg/kg/day and 15-700 mg/kg/day, respectively, orally, intravenously, intramuscularly, intraperitoneally, subcutaneously, by vaginal suppository or by rectal suppository, in the form of a tablet, capsule, suppository or powder, where the tablet, capsule, suppository or powder is provided with HNK and MCP in an amount such that 2-5 doses consumed daily provide 10-500 mg/kg/day HNK and 15-700 mg/kg/day MCP (claimed).
ICAI- A01N31/04; A61K31/05; A61K31/065; A61K31/732; A61K39/00; A61P35/00; A61P35/02; A61P35/04

PR - US20110984843 20110105
DN - AE AG AL AM AO AT AU AZ BA BB BG BH BR BW BY BZ CA CH CL CN CO CR CU CZ DE DK DM DO DZ EC EE EG ES FI GB GD GE GH GM GT HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LY MA MD ME MG MK MN MW MX MY MZ NA NG NI NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SK SL SM ST SV SY TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
PAW - (BETT-N) BETTER HEALTH PUBLISHING INC
- (ECON-N) ECONUGENICS INC
INW - ELIAZ I
AN - 2012-H64734 [47]

2/31 - (C) WPI / Thomson
PN - US2011294755 A1 20111201 DW201181
WO2012161836 A1 20121129 DW201279
TI - Treating mammal which benefits from reduction in galectin-3, where the reduction results in e.g. inhibition of cancer formation, inhibits or reduces inflammation and inhibition of cancer progression, comprises administering modified pectin
AB - NOVELTY :
Treating a mammal which benefits from a reduction in galectin-3, comprises: administering a modified pectin of low molecular weight of 10000-20000 D or 3000-13000 D, in an amount of 5-1500, (preferably 10-750) mg/kg/day, for a period of time for the mammal to gain benefit from the administration.
- ACTIVITY :
Cytostatic; Antiinflammatory; Cardiant; Nephrotropic; Hepatotropic; Uropathic; Antithyroid; Respiratory-Gen.; Cerebroprotective; Vasotropic; Antiarteriosclerotic; Antiarthritic; Antidiabetic.
- MECHANISM OF ACTION :
None given.
- USE :
The method is useful for treating a mammal which benefits from a reduction in galectin-3, where the reduction in galectin-3 results in inhibition of cancer formation, inhibition of cancer progression, inhibition of cancer transformation or the inhibition of the spread of cancer metastases, inhibits or reduces inflammation, and reduces the formation of fibrosis, in the mammal (all claimed). The method is useful for treating heart disease, kidney damage, liver damage, bladder disease, thyroid disease, pulmonary disease, stroke, persistent acute inflammation, atherosclerosis, arthritis and diabetes. Tests details are described but no results given.
- ADVANTAGE :
The modified pectin exhibits enhanced bio-availability and high binding potential to galectin-3.
- PHARMACEUTICALS :
Preferred Method: The method results in reduced galectin-3 in the mammal.
- ADMINISTRATION :
Administration of the modified pectin is 5-1500, (preferably 10-750) mg/kg/day (claimed), orally or intravenously.
ICAI- A01N63/00; A61K31/732; A61P29/00; A61P35/00; A61P35/04
PR - US201113153648 20110606; US20110447138P 20110228; US20060485955 20060714; US20050711415P 20050826
DN - AE AG AL AM AO AT AU AZ BA BB BG BH BR BW BY BZ CA CH CL CN CO CR CU CZ DE DK DM DO DZ EC EE EG ES FI GB GD GE GH GM GT HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LY MA MD ME MG MK MN MW MX MY MZ NA NG NI NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SK SL SM ST SV SY TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
PAW - (ECON-N) ECONUGENICS INC
- (ELIA-I) ELIAZ I
INW - ELIAZ I
AN - 2011-P73056 [81]

3/31 - (C) WPI / Thomson

PN - CN101491275 A 20090729 DW200954
TI - Edible food pectin preservative film for use in fruit or vegetable preservation comprises pectin, deionized water and glycerin
AB - NOVELTY :
An edible food pectin preservative film comprises (pts.wt.) pectin (100-300), deionized water (700-900) and glycerin (10-60).
- DETAILED DESCRIPTION :
An INDEPENDENT CLAIM is included for a method for preparing the edible food pectin preservative film, comprising preparing pectin emulsion, agitating pectin (100-300 pts.wt.) and deionized water (700-900); dispersing formed mixture to be pectin emulsion (10-30 wt.%); preparing pectin liquid, adding glycerin (10-60 pts.wt.) and reacting at 75-85[deg] C for 60-70 minutes; homogenizing and dispersing pectin liquid at 3500-4500 rpm/minute for 10-15 minute; and filming by poured pectin liquid (8 ml) to every square centimeter, pouring homogenized pectin liquid to filming device, and drying at 60-65[deg] C for 12-14 hours.
- USE :
An edible food pectin preservative film for use in food (i.e. fruit or vegetable) preservation (claimed), e.g. inhibiting oxygen transmission, carbon dioxide transmission, and water vaporization of fruits and vegetables.
- ADVANTAGE :
The edible food pectin preservative film has good anti-cutting property and anti-pulling intensity; does not contain pollution; and can be safely eaten.
- FOOD :
Preferred Components: The glycerin is natural glycerin extracted from plant. The pectin is natural pectin extracted from fruits and vegetables; and can be banana pectin, orange pectin or sunflower pectin. Preferred Parameters: The food film has transmittance of 80-85%, anti-pulling intensity of 2700-3000 MPa, broken extensibility of 1.4-1.8%, water vapor transmission of 15-20 g/m <2>for 24 hours at 25[deg] C, oxygen transmittance of 60-90 g/m <2>-d-atm at 23[deg] C, carbon dioxide transmission of 60-90 g/m <2>-d-atm at 23[deg] C.
ICAI- A23B7/16
ICCI- A23B7/00
PR - CN20091037263 20090220
PAW - (GUAN-N) GUANGDONG FOOD MEDICINE VOCATIONAL SCHOOL
INW - HUANG G; QIU L; TAN W; WEN Q
AN - 2009-M39287 [54]

4/31 - (C) WPI / Thomson
PN - US7491708 B1 20090217 DW200918
TI - Treating metastasis of tumor cell (melanoma cell) in animal, comprises preparing modified pectin by providing pectin comprising rhamnogalacturan backbone and maintaining pectin pH and contacting tumor cell with the modified pectin
AB - NOVELTY :
Method for treating metastasis of a tumor cell in an animal comprises: (I) preparing a modified pectin (A) by providing a pectin comprising a rhamnogalacturan backbone, maintaining the pectin at an alkaline pH for a time to disrupt the rhamnogalacturan backbone to obtain a depolymerized pectin, and maintaining the depolymerized pectin at an acidic pH to obtain the modified pectin; and (II) contacting the tumor cell with the modified pectin.
- DETAILED DESCRIPTION :
Method for treating metastasis of a tumor cell in an animal comprises: (I) preparing a modified pectin (A) by providing a pectin comprising a rhamnogalacturan backbone having side chains of neutral sugars dependent from it, maintaining the pectin at an alkaline pH for a time to disrupt the rhamnogalacturan backbone to obtain a depolymerized pectin, and maintaining the depolymerized pectin at an acidic pH for a time to break the side chains of neutral sugars into smaller units

having an average molecular weight of 10.2 kd as determined by viscosity measurements at 26[deg] C to obtain the modified pectin; and (II) contacting the tumor cell with the modified pectin.
- ACTIVITY :
Cytostatic.
- MECHANISM OF ACTION :
None given.
- USE :
The method is useful for treating the metastasis of a tumor cell (preferably melanoma cell) in an animal. The method is useful for inhibiting: malignant metastasis; and cell to cell and cell to substratum adhesion. The method is useful for preventing tumor cell migration and lung colonization in vivo; and immobilizing tumor cells. (A) was tested for its effect on metastasis using B16-F1 melanoma cells of mice. The result showed that number of lung nodules range for B-modified citrus pectin was 0 and number of lung nodules range for control was 10-47.
- ADVANTAGE :
The method can affect motility of malignant tumor cells, hence prevent lung colonization. The modified pectin containing essentially of neutral sugar sequences with a low degree of branching, hence prevent tumor cell migration and cell to cell and cell to substratum adhesion.
- PHARMACEUTICALS :
Preferred Method: The step of providing quantity of pectin comprises dissolving the pectin in a solvent to give a solution of pectin. The step of maintaining the pectin at an alkaline pH comprises maintaining the solution of pectin at a pH of at least 10. The method further comprises: maintaining the solution of pectin at a pH of at least 10 for approximately 30 minutes; and washing and dehydrating the modified pectin so as to prepare a final solution comprising the modified pectin (5-10 wt.%). The step of maintaining the depolymerized pectin at an acidic pH comprises maintaining the depolymerized pectin at a pH of approximately 3, where the depolymerized pectin is maintained at a pH of approximately 3 for 10-24 hours. The step of preparing the modified pectin further comprises neutralizing the modified pectin to a pH of approximately 6.3. The step of contacting the tumor cell with the modified pectin comprises injecting the modified pectin into the animal.
- ADMINISTRATION :
Administration of (A) is intravenous or subcutaneous. No dosage details given.

ICAI- A61K31/715
ICCI- A61K31/715
PR - US19930024487 19930301
PAW - (PLAT-I) PLATT D
INW - PLATT D
AN - 2009-F53794 [18]

5/31 - (C) WPI / Thomson
PN - DE202007009905U U1 20081211 DW200901
TI - Glaze, useful for coating bakery products, comprises dissolved solid materials e.g. sugar alcohol, glucose-fructose syrup, fructooligosaccharide, polydextrose and dietary fiber, water, gelling agent, pigment, fat and emulsifier
AB - NOVELTY :
Glaze for coating of bakery products, comprises: (a) 40-70, preferably 55-64 wt.% of dissolved solid materials of sugar type, sugar alcohol, sweetener, glucose-fructose syrup, fructooligosaccharide, polydextrose, other soluble dietary fibers or its mixtures; (b) 25-50, preferably 29-32 wt.% of water; (c) 1-1.4, preferably 1.15-1.25 wt.% of at least a gelling agent; (d) 0.085-0.115, preferably 0.095-0.105 wt.% of at least a pigment; (e) 3-10 wt.% of fat; and (f) 0.025-0.035, preferably 0.028-0.032 wt.% of at least an emulsifier.
- DETAILED DESCRIPTION :

Glaze for coating of bakery products, comprises: (a) 40-70, preferably 55-64 wt.% of dissolved solid materials of sugar type, sugar alcohol, sweetener, glucose-fructose syrup, fructooligosaccharide, polydextrose, other soluble dietary fibers or its mixtures; (b) 25-50, preferably 29-32 wt.% of water; (c) 1-1.4, preferably 1.15-1.25 wt.% of at least a gelling agent; (d) 0.085-0.115, preferably 0.095-0.105 wt.% of at least a pigment; (e) 3-10 wt.% of fat; and (f) 0.025-0.035, preferably 0.028-0.032 wt.% of at least an emulsifier, where: the amount of fat containing 80, preferably 90 wt.% of a portion of saturated fatty acids or a carbon chain length, preferably >= 18 carbons, is 4-8, preferably 6 wt.%.

- USE :
  The glaze is useful for coating bakery products.
- ADVANTAGE :
  The glaze exhibits: improved flow properties, processability at 65-80[deg] C, stability, and high humidity.
- FOOD :
  Preferred Components: The aroma materials are vanilla-, chocolate-, mocha- or fruit aromas, where the pigments are coordinated on the respective aromas.
- ORGANIC CHEMISTRY :
  Preferred Composition: The glaze further: comprises at least an acid regulator (0.55-0.75, preferably 0.62-0.68 wt.%) and at least an aroma material (0.034-0.046, preferably 0.038-0.042 wt.%). Preferred Components: The fat with a portion of saturated fatty acid: comprises saturated vegetable fat and/or a vegetable hard fat, preferably coconut fat and/or palm core fat; is present as finely distributed form; exhibits a particle size of less than 10 mu m. The fat with at least 50%, preferably 60% portion of saturated fatty acid is present as crystals at room temperature. All fat ingredients of the glaze are based on saturated fatty acids. The gelling agent comprises a low esterified, preferably amidated pectin. The dry mass value of the glaze is 40-70[deg] Brix, preferably 62[deg] Brix. The pH of the glaze is 2.9-3.5, preferably 3.3; and the water activity of the glaze is 0.75-0.9, preferably 0.86.
- EXAMPLE :
  Typical glaze composition comprised of (in wt.%): sugar (31.4); water (30.56); glucose-fructose syrup (from wheat and corn) (30); hardened vegetable fat (coconut- and palm kernel fat) (6); pectin E440 (8% solution in water) (1.2); citric acid E 330, sodium citrate E 331 and calcium citrate E 333 (0.65); titanium dioxide E171 (0.10); apricot (0.04); and citric acid esters of mono-diglycerides (E 472c) (0.03).

ICAI- A21D15/08; A23G1/36; A23G3/00; A23G3/40; A23P1/08
ICCI- A21D15/00; A23G1/30; A23G3/00; A23G3/34; A23P1/08
PR - DE200720009905U 20070626
PAW - (ZENT-N) ZENTIS GMBH & CO KG
AN - 2009-A14174 [01]

6/31 - (C) WPI / Thomson
PN - CN101269087 A 20080924 DW200878
CN101269087B B 20111109 DW201182
TI - Pectin-5-fluorouracil colon cancer dual target pro-drug is obtained by connecting 6th position carboxyl with N1 position of 5-fluorouracil directly or connecting by different bridging groups
AB - NOVELTY :
Pectin-5-fluorouracil colon cancer dual target pro-drug is obtained by connecting 6th position carboxyl with N1 position of 5-fluorouracil directly or connecting by different bridging groups.
- DETAILED DESCRIPTION :
  Pectin-5-fluorouracil (5-FU) colon cancer dual target pro-drug is obtained by connecting 6th position carboxyl with N1 position of 5-FU directly or connecting by different bridging groups. It is of formula (I). An INDEPENDENT CLAIM is included for a preparation method of pectin-5-fluorouracil colon cancer dual target pro-drug comprising

forming ester or acylamide using 5-FU derivatives and carboxyl of pectin or forming acylamide using pectin carboxyl and amine (-NH 2) of 5-fluorouracil and connecting them.
[Image]

- ACTIVITY :
Cytostatic.
- USE :
The pro-drug is used for curing colon cancer.
- ADVANTAGE :
The pro-drug utilizes pectin to make the 5-FU face the colon cancer cell firstly and realizes colon cancer positioning release. It improves selectivity of 5-FU, strengthens curative effect, and decreases bad effect. The pectin hydrolysis segment has function of resisting tumor transfer and could cooperate with 5-FU. The pro-drug have has selectivity, high efficiency, and low toxicity.
- ORGANIC CHEMISTRY :
Preferred Component: The compound is pectin-5-FU or pectin-R-5-FU. The pectin of the compound is the pectin of low esterification and target molecular weight obtained by pectase hydrolyzing, methanol saponifying, water phase or alkaline hydrolysis, and sodium borohydride deoxidizing. The pectin target molecular weight segment is obtained by gel chromatography or molecular weight interception. The pectin is the colon drug delivery carrier and ligand of galectin-3 highly represented by colon cancer at one time, with dual-target function.

R : -CH 2-, -CO-, -COCH 2-, -CO(CH 2) nCO-; and
n : 1-4.
Preferred Method: The compound synthesis comprises forming acylamide using 5-FU and 6th position carboxyl of pectin directly, or forming acylamide or ester using 6th position carboxyl derivation of the pectin and 5-FU, or forming ester or acylamide using 5-FU derivation and 6th position carboxyl of the pectin and connecting them. The esterification is realized by acyl chloride method or DCC. Acylamide formation is obtained by ammonolysis of acyl chloride. The pectin is hydrolyzed by pectase with pH of 4-5 or saponified by methanol, for 24 hour, or hydrolyzed by pH of 9-10 and acid with pH of 3-5, or deoxidized by sodium borohydride. By high performance liquid chromatography (HPLC) detecting degree of esterification, it makes degree of esterification be less than 20%. After alcohol precipitation and dialysis, pectin containing galacturonic acid of target molecular weight connects 5-FU directly or by bridge bond. The compound adds pectin of 15 g to aqueous solution of 3N odium hydroxide, stirred at 37[deg] C and rested for a night. It cooled to room temperature. Ethanol precipitates. Concentrated hydrochloride is added to mix pH value to be 3, stirred at 37[deg] C, and rested for a night. The pH value is adjusted to neutrality. Pressure is reduced and solvent is evaporated. Suspension is concentrated. Distilled water is added for dissolving which is delivered to dialysis bag with interception molecular weight of 8000. It is taken as dialysis extracellular fluid, until the dialysis intra-fluid unchanged, concentrated, cooled, and dried for 24 hours and light brown powder (13.6 g) is obtained. The degree of esterification is less than 30% detected by HPLC. Modified pectin (0.5 g) is weighed to dissolve in dimethyl sulfoxide (20 ml). N,N'-Dicyclohexylcarbodiimide (DCC) (0.25 g) and 1,1-dimethyl-4-diphenylacetoxypiperidinium iodide (DAMP) (15 mg) are added. 5-FU (0.5 g) is added, and stirred for 24 hours at 40[deg] C centigrade. Reactant is poured in ethanol. The jelly is separated out, filtered, drip washed by methanol, and dried in vacuum. The compound adds 0.78 g 5-FU to 5ml hexamethyl silylamine. It is heated to 145[deg] C, and trimethyl silylamine is dripped and stirred for 4 hours. Propalanine (1.2 g) is added to thionyl chloride (8 ml), and stirred and reflowed for 3 hours at 60[deg] C. Pressure is reduced and excess thionyl chloride is evaporated to obtain amino dibutyryl

chlorine. The amino dibutyryl chlorine is dissolved by anhydrous acetonitrile (8 ml) and added in 2,4-di(trimethylsiloxane)-5-fluorou racil with nitrogen protection. Triethylamine (1.68 ml) is added. Maple solid is obtained after reflowing the solution for 4 hours, reducing pressure, and evaporating the solvent. White solid compound (A) (0.5 g) is obtained after toluene recrystallizes twice. It is dissolved in anhydrous tetrahydrofuran, with 10% of palladium on carbon added. White solid compound (B) (0.36 g) is obtained after letting hydrogen go for 24 hours at room temperature. Modified pectin (0.5 g) is dissolved in dimethyl sulfoxide (20 ml), with DCC (0.25 g) and DAMP (15 mg). White solid compound (B) (1.8 g) is added and stirred for 48 hours at 35[deg] C. The reactant is poured in ethanol. The jelly is precipitated, filtered, drip washed by methanol, and dried in vacuum.

ICAI- A61K31/7072; A61K31/732; A61K47/48; A61P35/00; C08B37/06
ICCI- A61K31/7042; A61K31/732; A61K47/48; A61P35/00; C08B37/00
PR - CN20071018991 20071102
PAW - (UYCH-N) UNIV CHINESE PLA FOURTH MILITARY MEDICAL
- (UYFO-N) UNIV NO 4 MILITARY MEDICINE PLA
INW - BAI H; GUO Z; LI Y; LIU L; MEI Q; SUN Y
AN - 2008-N26371 [78]

7/31 - (C) WPI / Thomson
PN - WO2007145520 A1 20071221 DW200808
EP2032170 A1 20090311 DW200919
CN101472612 A 20090701 DW200946
US2010215631 A1 20100826 DW201056
CN101472612B B 20110608 DW201171
EP2032170 B1 20121128 DW201279
TI - Composition useful for treating and preventing inflammatory diseases e.g. Arthritis comprises glycine and transferrin protein
AB - NOVELTY :
A composition (C1) comprises glycine (40 mg per g protein) in the form of free amino acid and/or protein source containing glycine (15 wt.%); and transferrin protein (0.4-200 mg per g protein).
- ACTIVITY :
Antiarthritic; Immunomodulator; Antiinflammatory; Gastrointestinal-Gen.; Respiratory-Gen.; Neuroprotective; Nootropic; Antibacterial; Antimalarial; Immunosuppressive; Osteopathic; Antirheumatic; Antipsoriatic; Antiulcer; Virucide. Balb/C mice (8 weeks of age) were supplemented daily for three days with lactoferrin (0.1 mg), glycine (50 mg) or combination of both components administered by gavage. At day two of the supplementation ear thickness was measured, subsequently zymosan of 0.5% (25 mu l), was injected subcutaneously in both ears. Ear thickness was measured 3, 6 and 24 hours after injection. The spleen was removed and pushed through a cell strainer. Red blood cell lysis was performed in 5 ml of could lysis buffer (NH 4Cl (4.15 g), KHCO 3 (0.5 g) and Na 2EDTA (18.6 mg) in water (1 liter) at pH 7,3) for 5 minutes. Cells were washed and after centrifugation diluted to 1x10 <7> cells/ml. TNF-alpha producing cells were detected by ELISpot assay in the absence or presence of lipopolysaccharide (1 mu g/ml). The decrease in ear swelling (after 6 hours) was 111+-14/53+-17/28+-20/53+-17 in glycine+lactoferrin/lactoferrin/glyc ine. In mice injected in the ear with zymosan, lactoferrin and glycine supplemented mice showed a highest decrease in ear swelling when compared to non-supplemented mice. After 6 hours the combination of glycine and lactoferrin completely inhibited the increase in ear swelling which was statistically significant different from the groups supplemented with the individual ingredients lactoferrin and glycine.
- MECHANISM OF ACTION :
Interleukin-1 inhibitor; Interleukin-6 inhibitor; Tumor necrosis factor (TNF)-alpha inhibitor.
- USE :

In the manufacture of a nutritional composition for the treatment and prevention of inflammatory diseases e.g. Arthritis; cachexia symptoms in patients with an inflammatory disease, chronic obstructive pulmonary disease, intestinal inflammatory diseases, Alzheimer (claimed); to treat acute inflammation caused by bacterial or viral infection e.g. meningitis, sepsis, malaria or chronic inflammatory diseases such as rheumatoid arthritis, osteoarthritis, psoriasis, chronic bronchitis, inflammatory bowel disease (ulcerative colitis and crohn's disease), multiple sclerosis or Non Steroid Anti-Inflammatory Drugs induced ulcers in the gastro-intestinal tract.

- ADVANTAGE :
The composition provides improved alternative to anti-inflammatory nutritional compositions and provides balance nutrition. The composition also provides easily absorbable iron in lactoferrin.
- PHARMACEUTICALS :
Preferred Components: The transferrin protein is lactoferrin (preferably bovine lactoferrin) or its biologically active peptide. The protein source is collagen, gelatin or hydrolysates. Preferred Composition: The composition (C1) further comprises polyunsaturated fatty acids where the ratio n-3/n-6 of the polyunsaturated fatty acids in the product is at least 1; at least one selected form tryptophan, glucosamine, chondroitine, eicosapentaenoic acid containing oil, fish oil, prebiotics, probiotics, colostrum, uridinmonophosphate choline, phospholipids, vitamin B 1 and vitamin B 1 2. The composition (C1) in liquid form comprises glycine (0.5-50 mg/ml) and lactoferrin (0.1-25 mg/ml) and in nutritional composition form comprises protein (8-60 en%), fat (10-30 en%), carbohydrates (10-70 en%) and mixture of vitamins and minerals (2.5 g per 100 g dry weight of the total product) containing at least one of vitamin D, vitamin E, vitamin B 6, folic acid, coenzyme Q 1 0, betaine, calcium and selenium.
- ADMINISTRATION :
The glycine is administered at a dosage of 10-500 mg per kg body weight and the transferrin protein at a dosage of 0.5-30 mg per kg body weight daily (claimed), the preferred dose for glycine is 10-100 mg per kg body weight and for transferrin protein is 0.5-30 mg per kg body weight.
- EXAMPLE :
No suitable example is given.

ICAI- A23L1/305; A61K31/198; A61K35/06; A61K35/20; A61K35/60; A61K38/40; A61K45/06; A61P11/00; A61P19/02; A61P25/28; A61P29/00; A61P31/00
ICCI- A61K35/20; A61K35/56; A61K38/40; A61K45/00; A61P11/00; A61P19/00; A61P25/00; A61P29/00
PR - US20060814301P 20060615; EP20060115496 20060614
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MT MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW LI AL BA HR MK RS
DN - AE AG AL AM AT AU AZ BA BB BG BH BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DO DZ EC EE EG ES FI GB GD GE GH GM GT HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LY MA MD MG MK MN MW MX MY MZ NA NG NI NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SK SL SM SV SY TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW
PAW - (DNON) NUTRICIA NV
- (HART-I) HARTOG A
INW - HARTOG A
AN - 2008-B28161 [08]

8/31 - (C) WPI / Thomson
PN - US2008004237 A1 20080103 DW200835
CN101024085 A 20070829 DW200835
CN101024085B B 20100929 DW201118
TI - New prodrug comprising a polysaccharide bound by galectin-3, parent therapeutic compound, and covalent bond connecting the polysaccharide and the therapeutic compound useful for treatment of

galectin-3-expressing tumor e.g. breast tumors

AB - NOVELTY :
A prodrug (p1) comprising a polysaccharide bound by galectin-3 (a1); a parent therapeutic compound (a2), and a covalent bond connecting (a1) to (a2) is new.

- DETAILED DESCRIPTION :
An INDEPENDENT CLAIM is included for preparation of the prodrug (p1).
- ACTIVITY :
Cytostatic. No biological data given.
- MECHANISM OF ACTION :
None given.
- USE :
For targeted delivery of a therapeutic compound to a tumor expressing galectin-3; for the treatment of a galectin-3-expressing tumor (e.g. breast, lung, prostate, bladder, thyroid, head and neck, lymphomas, colorectal, and pancreatic tumors) (claimed).
- ADVANTAGE :
The prodrug possesses enhanced target specificity to galectin-3 expressing cancers cells. This unique property of the invention can lead to a higher efficacy and reduced toxicity profile, thus providing a preferential method to deliver 5-fluorouracil (5-FU) to galectin-3 expressing cancers treatment. The prodrug uses polysaccharide containing galactose as the carrier of 5-FU will have the targeting effect specifically at the galectin-3 expressing cancers cells, resulting in enhanced therapeutic effect of 5-FU; provides increased selectivity and improved safety profile, thus provides feasible dosage flexibility, allowing an oncologist to either push the 5-FU dose for maximal efficacy and reduce the 5-FU dose in frail or elderly patients to minimize toxicity. The polysaccharides also have immunoregulation function along with some anti-tumor effect which enable to help reduce the immunosuppression effect from 5-FU. The prodrug combines the medical design concepts of drug delivery, targeting, and synergism to achieve high efficacy and low toxicity.
- BIOTECHNOLOGY :
Preferred Components: The galactose-containing polysaccharide and the therapeutic parent compound are linked by the covalent bond. The galactose-containing polysaccharide, or its fragment is capable of binding to galectin-3. The prodrug (p1) comprises at least one galactose-containing fragment to which the therapeutic parental compound is covalently linked. The galactose-containing fragment results from the action of bacterial enzymes that degrade the galactose-containing polysaccharide. The galactose-containing fragment further comprises the parental therapeutic compound. The bacterial enzymes that produce the galactose-containing fragment are in the colon.
- ORGANIC CHEMISTRY :
Preferred Compound: The prodrug (p1) is a compound of formula polysaccharide-R-Z (I).

polysaccharide : a galactose-containing polysaccharide (preferably occurs naturally);
Z : a therapeutic parent compound (preferably anticancer compound, especially 5-fluorouracil (5-FU), irinotecan, capecitabine, or camptothecin);
R : a covalent bond between Z and the polysaccharide (preferably ester, ether, amide, amine, hydroxylamine, thioether or thioester, especially -(CH 2) n-, -CO-, -CO(CH 2) n-, and -CO(CH 2) n-CO-);
n : 1-4.
Preparation (Claimed): Preparation of the prodrug (p1) having affinity for galectin-3: either
(1) process (A): hydrolyzing pectin, guar gum and carob bean gum in alkali at a pH of 9-10; hydrolyzing the product in acid at a pH of 3-5; and purifying the galactose-containing polysaccharide, and reacting the galactose-containing polysaccharide with a parent

therapeutic compound Z thus forming covalent bond R comprising either an ester, ether, amide, amine, acyl amine, hydroxylamine, thioester, or thioether to obtain the prodrug (I); or
(2) process (B): pulverizing either aloe, medlar, or rhubarb and treating the pulverized material with ethanol to obtain a soluble phase and an insoluble residue; extracting the insoluble residue in boiling water to obtain polysaccharides, purifying the polysaccharide, and reacting the polysaccharide with a therapeutic parent compound Z to form covalent bond R comprising either an ester, ether, amide, amine, acyl amine, hydroxylamine, thioester, or thioether to obtain prodrug (I).
The method further involves: derivatizing the polysaccharide so as to add a functional group from ester, ether, amide, amine, hydroxylamine, thioether and thioester. In the method, the added functional group forms a covalent bond with the parent compound.
- PHARMACEUTICALS :
Preferred Components: The therapeutic parent compound comprises at least one atom available to form a covalent linkage with the galactose-containing polysaccharide (where the atom being oxygen, nitrogen or sulfur).
- POLYMERS :
Preferred Components: The polysaccharide is a galactose-containing polysaccharide; comprises at least one galactose residues available for binding to galectin-3. The galactose-containing polysaccharide has a molecular weight of 10 <5>-10 <7> Da. The galactose-containing polysaccharide is isolated from guar gum, carob bean gum, aloe, medlar or rhubarb; or is pectin.
- ADMINISTRATION :
The prodrug is administered orally (claimed), parenterally. No dosage given.
- EXAMPLE :
Pectin (1.2 g) was added into melting chloroacetic acid (52.5 g) and the solution was stirred under 70[deg]C constant temperature, and then acetic anhydride (35 ml) was added. The mixture was stirred for 3 hours at a constant temperature of 70[deg]C, the solution was poured into a large amount of ice water, forming a yellow precipitate. The yellow gel-like precipitate was separated, washed thoroughly with water and ethanol respectively in sequence. The precipitate was collected by filtration, and dried under vacuum at 40[deg]C for 24 hours to obtain a grayish yellow powder of chloroacetyl pectin. The chloroacetyl pectin was weighed and was added into dimethyl sulfoxide (DMSO) (20 ml), stirred under 60[deg]C until it was dissolved. Then a mixture of 5-fluorouracil (5-FU) (0.65 g) and triethylamine was added into the solution, stirred for 24 hours under 60[deg]C constant temperature, and, then poured the solution into anhydrous mixture ethanol-ether (100 ml) (1:1 ratio) to produce a loose fluffy precipitation which was filtered, washed and dried under vacuum at 40[deg]C for 24 hr to obtain a light yellow precipitate of Pectin-5-FU.

ICAI- A61K31/513; A61K31/716; A61K35/00; A61K47/36; A61K47/48; C08B37/00; C12P19/04
ICCI- A61K31/513; A61K31/716; A61K35/00; A61K47/36; A61K47/48; C08B37/00; C12P19/00
PR - CN20061041838 20060223; CN20061093913 20060623
PAW - (CHOI-I) CHOI D K M
- (MEIQ-I) MEI Q
- (TAMJ-I) TAM J C
- (UYPL-N) UNIV PLA NO 4 MILITARY
- (UYPL-N) UNIV PLA NO 4 MILITARY MEDICAL
INW - CHOI D K M; FENG J; LI Y; LIU L; LIU X; MEI Q; TAM J C; TAN Z; WANG Q
AN - 2008-F27864 [35]

9/31 - (C) WPI / Thomson
PN - WO2006098625 A1 20060921 DW200666
EP1833495 A1 20070919 DW200763

AU2006223754 A1 20060921 DW200810
DE212006000025U U1 20080207 DW200812
EP1833495 B1 20080206 DW200812
DE602006000511E E 20080320 DW200822
KR20070110518 A 20071119 DW200839
ES2301152T T3 20080616 DW200845
CN101166535 A 20080423 DW200847
US2008193551 A1 20080814 DW200856
JP2008533134 A 20080821 DW200857
DE602006000511T T2 20090129 DW200909
AU2008100924 A4 20081023 DW200929
AU2008100926 A4 20081023 DW200929
TW200719908 A 20070601 DW200934
AU2009100377 A4 20090528 DW200955
AU2008100924B B4 20090521 DW200957
AU2006223754B B2 20081106 DW200960
AU2008100926B B4 20081106 DW200962
JP2010100627 A 20100506 DW201030
RU2445105 C2 20120320 DW201220
US8147875 B2 20120403 DW201224

TI - Use of lactoferrin-containing whey protein fraction for preparation of an oral composition for treatment of acne

AB - NOVELTY :
Use of a whey protein fraction comprising lactoferrin, for preparing an oral composition for the treatment of acne, is new.

- ACTIVITY :
Antiseborrheic; Dermatological.
Forty-four teenagers were given chewable tablets containing bovine whey protein fraction containing lactoferrin (200 mg) for 12 successive weeks. The numbers of blackheads and non-blackheads were counted over the facial regions for each subject at each week. The results showed that after 12 weeks, 80% of the teenagers reported improvements, i.e. reduced acne.

- MECHANISM OF ACTION :
None given.

- USE :
For preparation of an oral composition for the treatment of acne (claimed).

- ADVANTAGE :
The oral composition provides means and method for the treatment of acne using natural or nature-like agents and having improved effectiveness avoiding adverse side effects. Additional topical treatment is not necessary and is in fact undesired. The treatment inhibits further expansion of acne and can also suitably be given during the menstrual period.

- BIOLOGY :
Preferred Composition: The whey protein fraction contains lactoferrin (50 - 98 wt.%) and further contains basic proteins or peptides having a molecular weight (10 - 60 kD). The weight ratio of lactoferrin-containing whey protein fraction and the carbohydrate and/or non-whey protein is 1:4 - 1:100.

- ADMINISTRATION :
Dosage of lactoferrin is 40 mg - 2 g (preferably 60 - 800 mg/day). The whey protein fraction is administered in the form of a tablet or as a food or beverage containing a carbohydrate and/or a non-whey protein. The oral dosage unit contains lactoferrin (at least 10, preferably 20) mg and non-reducing sugars, polysaccharides and/or sugar alcohols (50 wt.%) (claimed).

- EXAMPLE :
A tablet was prepared by using (mg) Sorbitol P60W (RTM: sorbitol) (700), Mannitol DS200 (RTM: mannitol) (200), Primojel (RTM: sodium starch glycolate) (40), 79.6% lactoferrin (prepared from cheddar whey) (62.8), malic acid (6), magnesium stearate (5), Ottens S-627 (RTM: orange flavor) (3.2) and

FD and C Yellow #6 (RTM: orange color) (1.4).
ICAI- A01N37/18; A23C9/13; A23L1/30; A23L1/305; A23L2/52; A61K35/20; A61K38/16; A61K38/40; A61K47/10; A61K47/26; A61K47/36; A61K47/38; A61K47/42; A61K9/06; A61K9/08; A61K9/10; A61K9/16; A61K9/20; A61K9/48; A61P17/02; A61P17/10
ICAN- A61K35/20; A61K38/00; A61K8/64; A61K8/98; A61P17/10; A61Q19/00; C07K14/47; C07K14/79; C07K7/06
ICCI- A61K35/20; A61K38/40; A61P17/00
PR - EP20050102043 20050315; AU20080100924 20080919; AU20080100926 20080919
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW LI
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (CAMP-N) CAMPINA NEDERLAND HOLDING BV
INW - ANGELA LORIANN W; DE W R; DE WAARD R; RICK D W; WAARD R D; WALTER A; WALTER A L
AN - 2006-635986 [66]

10/31 - (C) WPI / Thomson
PN - WO2005095463 A1 20051013 DW200576
US2005250735 A1 20051110 DW200576
EP1765874 A1 20070328 DW200725
US8128966 B2 20120306 DW201217
US2012123102 A1 20120517 DW201234
US8187642 B1 20120529 DW201236
US2012149658 A1 20120614 DW201240
US2012309711 A1 20121206 DW201281
US2012315309 A1 20121213 DW201282
TI - New modified pectin material (that inhibits cancer cell proliferation) is DNA synthesis inhibitor useful to treat e.g. colon cancer, bladder cancer, mastocytoma, gastrointestinal cancer and stomach cancer
AB - NOVELTY :
Modified pectin material (I) (that inhibits cancer cell proliferation with an median inhibitory concentration (IC 5 0) value of less than 200 mu g/ml) is new.
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for:
(1) the preparation of (I);
(2) preparation of a deesterified and partially depolymerized modified pectin;
(3) a deesterified and partially depolymerized modified pectin;
(4) a pharmaceutical composition comprising (I) and an excipient;
(5) a pharmaceutical packages comprising (a) a vial or ampoule containing the composition as an aqueous solution suitable for injection, (b) a plastic bag containing the composition (100 ml-2 l) as a solution suitable for intravenous administration, or (c) a solution of modified pectin; and instructions for administering the composition to a patient (for (a and b); and instructions for diluting the solution of modified pectin to a concentration for administration to a patient intravenously or by injection (for (c));
(6) an oral, topical and inhalable dosage form comprising (I); and
(7) compositions comprising a modified pectin material or a deesterified and partially depolymerized modified pectin substantially free of modified pectin having a molecular weight below 25 kD.
- ACTIVITY :
Antiangiogenic; Cytostatic.
- MECHANISM OF ACTION :
DNA synthesis inhibitor.
- USE :
(I) is useful for inhibiting a cell proliferation (angiogenesis and

cancer (renal cell cancer, Kaposi's sarcoma, chronic leukemia, chronic lymphocytic leukemia, breast cancer, sarcoma, myeloma, ovarian carcinoma, rectal cancer, throat cancer, melanoma, lymphoma, mesothelioma, colon cancer, bladder cancer, mastocytoma, lung cancer, liver cancer, mammary adenocarcinoma, pharyngeal squamous cell carcinoma, prostate cancer, pancreatic cancer, gastrointestinal cancer, and stomach cancer) (claimed). (I) was tested for its ability to inhibit cell proliferation using biological assays. The results showed that the median inhibitory concentration of (I) was 67 mu g/ml.

- ADVANTAGE :
(I) has improved potency, purity and composition uniformity. The composition of modified pectin substantially free of ethanol and acetone. The method of producing (I) is reliable and reproducible.
- ORGANIC CHEMISTRY :
Preparation (claimed): Preparation of (I) comprises either passing a modified or unmodified pectin through a tangential flow filter; or subjecting a modified or unmodified pectin to tangential flow filtration with a pore size of less than 1 mu m; or preparation of a deesterified and partially depolymerized modified pectin comprises treating a solution of pectin with acid, base or both to break down the pectin, neutralizing the solution and purifying a solution of the modified pectin by ultrafiltration; or maintaining a solution of at an alkaline pH of 9-12 for 30 minutes, lowering the pH of the solution to an acidic pH of 2-5 for 15 minutes, and neutralizing the solution. Preferred Components: The filter has a nominal pore size of below 1 (preferably less than 0.22) mu m. The pectin is filtered as an aqueous solution comprising 0-25 or 10-20% w/w ethanol at a pH of 2.5-7.5 or 6-7. (I) essentially consists of a homogalacturonan backbone with small amounts of rhamnogalacturonan, where the backbone has neutral sugar side chains having a low degree of branching dependent from the backbone. The galacturonic acid subunits of the backbone is substantially deesterified. (I) has average molecular weight of 50-200 (preferably precipitating 80-150) kD. The pectin solution has a pH of 1-10 mu g/ml. Preferred Process: The preparation of a deesterified and partially depolymerized modified pectin further comprises modified pectin from the solution; washing the modified pectin with ethanol after neutralizing the solution and before purifying a solution of the modified pectin; adjusting the solution of iso-osmolality; clarifying the solution; subjecting a solution of the modified pectin to microfiltration; and lyophilizing the modified pectin. The ultrafiltration comprises tangential flow filtration. The alkaline pH is a pH of 10-11 (preferably 2.5-3.5). The preparation of the deesterified and partially depolymerized modified pectin further comprises treating the solution to reduce the concentration of endotoxins; purifying a solution of the modified pectin by ultrafiltration. (I) inhibits cancer cell proliferation with an IC 5 0 value of less than 100 (preferably 30-50) mu g/ml.
- ADMINISTRATION :
Administration of (I) is oral, topical, intravenous or via inhalation or injection.
- EXAMPLE :
Citrus fruit pectin (800 g) was added (at a rate of about 15 g/minutes) with vigorous stirring to water (89 l). The mixture was stirred for approximately 1 hour until the pectin appeared dissolved. The solution was then rapidly adjusted to pH 10.7 by the addition of 10 N sodium hydroxide solution, and stirred at about 27[deg]C for 20 minutes, while maintaining pH 10.7 using 10 N sodium hydroxide. The solution pH was adjusted to pH 3 by gradual addition of 3 M hydrochloric acid and maintained for 10 minutes. The pH was then adjusted to 6.3 using 10 M and 1M sodium hydroxide and maintained for 10 minutes. The resulting solution was then transferred into a 70% ethanol solution to precipitate the modified pectin. The precipitate was then isolated by screen filtration and washed with a 70% ethanol solution. The precipitate was then dissolved in water, adjusted to 5

mg/ml modified pectin, 15% w/w ethanol and pH 6.5. The resulting solution was worked up to give the modified pectin.
ICAI- A01N65/00; A61K31/732; A61K9/14; A61P35/00; C08B37/00; C08B37/06
ICAN- C08L5/06
ICCI- A61K31/732; C08B37/00
PR - US20040556674P 20040326; US20050093268 20050328; US201213357325 20120124; US201213400007 20120217; US201213588877 20120817; US201213588932 20120817
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW LI
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (GLYC-N) GLYCOGENESYS INC
- (LJOL-N) LA JOLLA PHARM CO
INW - ROLKE J; STAPLES M
AN - 2005-747092 [76]

11/31 - (C) WPI / Thomson
PN - US2005202149 A1 20050915 DW200573
WO2005086976 A2 20050922 DW200573
EP1734832 A2 20061227 DW200702
AU2005221216 A1 20050922 DW200720
JP2007528228 A 20071011 DW200768
INDELNP200605150E E 20070824 DW200780
CN1997282 A 20070711 DW200801
US8137728 B2 20120320 DW201221
WO2005086976 A3 20061012 DW201222
TI - Emulsion system for delivery of food-grade hydrophobic component, comprises hydrophobic component in aqueous medium; and indigestible food-grade component(s)
AB - NOVELTY :
An emulsion system for delivery of a food-grade hydrophobic component, comprises a hydrophobic component in an aqueous medium; and indigestible food-grade component(s).
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for:
(1) an emulsion composition for controlling digestion of a fat or an oil ingredient, comprising a hydrophobic component in an aqueous medium; an emulsifier component having a net charge; and a polymeric component with a portion having a net charge opposite that of a net charge of the emulsifier component, where one of the emulsifier component and the polymeric component comprises an indigestible polysaccharide component;
(2) a method of using a multilayer composition to control digestion of a fat or an oil component, comprising providing the emulsion system comprising the hydrophobic component(s) in the aqueous medium and the indigestible food-grade component(s); and incorporating the emulsion system into one of a food and a beverage product; and
(3) a method of using dietary fiber to control absorption of fat or oil in a digestive tract of a human or an animal, comprising providing the hydrophobic component in the aqueous medium; and contacting the hydrophobic component with the indigestible dietary fiber component(s).
- USE :
For delivery of food-grade hydrophobic component.
- ADVANTAGE :
The inventive system is environmentally stable against elevated temperatures, freeze-thaw cycling, high mineral contents, mechanical agitation and/or the environmental conditions required by the reduced calorie/reduced fat food product.
- FOOD :
Preferred Component: The hydrophobic component is a fat or an oil

component from corn oil, soybean oil, sunflower oil, canola oil, rapeseed oil, olive oil, peanut oil, algal oil, nut oils, plant oils, vegetable oils, fish oils, flavor oils, animal fats, and/or dairy fats; a fat or an oil component from corn oil, soybean oil, sunflower oil, canola oil, rapeseed oil, olive oil, peanut oil, algal oil, nut oils, plant oils, vegetable oils, fish oils, flavor oils, animal fats, and/or vegetable fats; or one or more natural or synthetic lipid components. It is at least partly dispersed in the aqueous medium with emulsifier component(s). The indigestible food-grade component has a net charge. It comprises polysaccharide component(s); a covalent protein-polysaccharide complex; and a dietary fiber impermeable with respect to the hydrophobic component. The polysaccharide component is a dietary fiber, i.e. chitosan. The emulsion system further comprises a food-grade polymeric component having a net charge opposite that of the net charge of the indigestible food-grade component, and multilayered components each comprising the hydrophobic component and layer(s) of the indigestible food-grade component. Each layer possesses a net charge and is in electrostatic interaction with the underlying subsequently adsorbed layer. The emulsifier component is lecithin, chitosan, pectin, locust bean gum, gum arabic, guar gum, alginic acids, alginates, cellulose, modified cellulose, modified starch, why proteins, caseins, soy proteins, fish proteins, meat proteins, plant proteins, polysorbates, fatty acid salts, DATEM, CITREM, and/or small molecule surfactants. The polymeric component comprises one or more protein components, and/or polysaccharide components. The indigestible polysaccharide component comprises at least one of chitosan, cellulose and derivatives thereof, methylcellulose, inulin and its derivatives, lignin, aminopolysaccharides, pectin, carrageenan, alginate, and/or food gums. The emulsion composition further comprises a second polymeric component having a net charge. The second polymeric component is in electrostatic interaction with a portion of the emulsifier component and/or a portion of the polymeric component.

- INSTRUMENTATION AND TESTING :
  Preferred Method: The method of using the dietary fiber further comprises contacting the hydrophobic component with one or more layers of food-grade polymeric components, where each layer is in electrostatic interaction with the underlying subsequently contacted layer; and one of mechanical agitation and sonication of the hydrophobic component.
- EXAMPLE :
  A primary emulsion was prepared by homogenizing corn oil (5 wt.%) with an aqueous emulsifier solution (95 wt.%) in a high-speed blender followed by two passes at 4000 psi through a two-stage high-pressure vane homogenizer. A secondary emulsion was prepared by mixing the primary emulsion with appropriate amounts of chitosan solution and buffer solution to obtain a final concentration of corn oil (1 wt.%), lecithin (0.2 wt.%), chitosan (0.0155 wt.%), and 100 mM acetic acid (pH 3.0). These systems were stirred for 1 hour using a magnetic stirrer at ambient temperature. The flocs formed in this emulsion were disrupted upon passing the flocs twice through a high-pressure value homogenizer at a pressure of 4000 psi. Tertiary emulsions were formed by diluting the secondary emulsion with aqueous pectin solutions to produce a series of emulsions with different pectin concentrations: corn oil (0.5 wt.%), lecithin (0.1 wt.%), chitosan (0.0078 wt.%), 100 mM acetic acid and pectin (0-0.02 wt.%, pH 3.0). These systems were stirred for 1 hour using the magnetic stirrer at ambient temperature. The tertiary emulsions were stored at room temperature for 24 hours before being analyzed.

IC - A23D7/005
ICAI- A23D7/00; A23D7/005; A23D9/00; A23L1/30; A23L1/308
ICCI- A23D7/005; A23L1/30
PR - US20050078216 20050311; US20040552165P 20040311
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE

LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
AL BA HR LI LV MK YU
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH
PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC
VN YU ZA ZM ZW
PAW - (UMAC) UNIV MASSACHUSETTS
- (DECK-I) DECKER E A
- (MCCL-I) MCCLEMENTS D J
INW - DECKER E; DECKER E A; MCCLEMENTS D; MCCLEMENTS D J; MCCLEMENTS D J D E
AN - 2005-710298 [73]

12/31 - (C) WPI / Thomson
PN - WO2005063059 A1 20050714 DW200556
EP1699304 A1 20060913 DW200660
AU2004308061 A1 20050714 DW200707
BRPI0416722 A 20070116 DW200708
INMUMNP200600738E E 20070323 DW200730
US2007166437 A1 20070719 DW200749
ZA200604294 A 20071031 DW200781
EP1699304 B1 20080917 DW200862
DE602004016685E E 20081030 DW200874
AU2004308061B B2 20080911 DW200925
IN229747 B 20090327 DW200982
TI - Edible barrier useful in food products e.g. in leaking ingredients comprises a cross-linked biopolymer and a lipid material
AB - NOVELTY :
Edible barrier comprises a cross-linked biopolymer and a lipid material; and has a thickness of 2 - 1500 (preferably 10 - 500, especially 50 - 200) micrometer.
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are included for the following:
(1) composite food product comprising parts having different water activities (aw), separated by the barrier;
(2) food product comprising the edible barrier covering a food ingredient selected from vegetables, fruit, bread and fish;
(3) preparation of the food product involving oxidation of cross-linked biopolymer and lipid material.
- USE :
In food products (claimed) e.g. in leaking (moisture or flavor or oil) ingredients such as vegetables (tomato, salad), fruit, bread, fish and meat.
- ADVANTAGE :
The barrier effectively reduces migration of moisture and flavor in a food product; and has high physical strength and good adhering properties.
- BIOTECHNOLOGY :
Preferred Method: The oxidation is carried out by an enzyme or enzymatic system. The enzymatic system is already present in situ e.g. tomato proxidase in tomatoes.
- POLYMERS :
Preferred Components: The biopolymer is a hydrocolloid based biopolymer containing ortho-methoxy-phenolic or ferulic acid groups (preferably pectin). The cross-linked biopolymer is hydrophobically modified. The barrier is a modified polymer which contains ferulic acid and one or two fatty acid chains coupled to a vanillin coupled polymer e.g. chitosan. The cross-linked biopolymer is crosslinked to a protein or vanillin coupled protein (e.g. casein-vanillin).
IC - A23L1/00; A23P1/08
ICAI- A21D13/00; A21D15/08; A23B7/16; A23L1/00; A23L1/325; A23P1/08; B65D85/78
ICCI- A21D13/00; A21D15/00; A23B7/00; A23L1/00; A23L1/325; A23P; A23P1/08; B65D85/72

PR - EP20030079171 20031223
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW LI
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (UNIL) HINDUSTAN LEVER LTD
- (UNIL) HINDUSTAN UNILEVER LTD
- (UNIL) UNILEVER NV
- (UNIL) UNILEVER PLC
- (BEVE-I) BEVERS L E
- (BOUW-I) BOUWENS E C M
- (RAVE-I) RAVESTEIN P
- (VHEI-I) VAN DER HEIJDEN H T W M

INW - BEVERS L; BEVERS L E; BOUWENS E; BOUWENS E C; BOUWENS E C M; RAVESTEIN P; VAN DER HEIJDEN H T; VAN DER HIJDEN H; VAN DER HIJDEN H T; VAN DER HIJDEN H T W M
AN - 2005-554620 [56]

13/31 - (C) WPI / Thomson
PN - WO2004091634 A1 20041028 DW200476
US2004223971 A1 20041111 DW200476
EP1617849 A1 20060125 DW200608
AU2004229399 A1 20041028 DW200615
JP2006522163 A 20060928 DW200667
US2008089959 A1 20080417 DW200830
EP1617849 B1 20080618 DW200841
DE602004014485E E 20080731 DW200853
EP1980257 A1 20081015 DW200868
INDELNP200505019E E 20091002 DW200982
AU2004229399B B2 20100805 DW201058
TI - Use of an agent that inhibits galectin-3 activity e.g. to enhance the efficacy of a therapeutic treatment for proliferative disorders (e.g. Kaposi's sarcoma, chronic inflammation and psoriasis)
AB - NOVELTY :
Enhancement the efficacy of a therapeutic treatment for proliferative disorders, where cytotoxicity of the therapeutic treatment is influenced by the status of an anti-apoptotic Bcl-2 protein of a cancer cell or cell undergoing unwanted proliferation in the patient, comprises a therapeutic regimen including conjointly administering an agent that inhibits galectin-3 activity (I) (galectin-3 inhibitor).
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for
(1) reducing the rate of growth of a tumor cell or a cell undergoing unwanted proliferation in a patient, comprising administration to the patient a therapeutic regimen comprising a chemotherapeutic agent whose cytotoxicity is influenced by the status of an anti-apoptotic Bcl-2 protein for the cell; and (I) to reduce the levels of one or more G1/S cyclins in the cell;
(2) reducing the rate of growth of a tumor cell or a cell undergoing unwanted proliferation which expresses galectin-3 in a patient, comprising obtaining a sample of the cell from a patient; ascertaining the galectin-3 status of the cell sample; and for a patient having a cell sample that expresses galectin-3, administering a therapeutic regimen including (I) to reduce the levels of one or more G1/S cyclins in the cell;
(3) enhancing the pro-apoptotic effect of a chemotherapeutic agent that interferes with DNA replication fidelity or cell-cycle progression of a cancer cell or a cell undergoing unwanted proliferation in a patient, comprising therapeutic regimen including conjointly administering to the patient the chemotherapeutic agent and (I) to reduce the levels of one or more G1/S cyclins in the cell;

(4) reducing the rate of growth of a tumor cell or a cell undergoing unwanted proliferation which expresses an anti-apoptotic Bcl-2 protein, comprising obtaining a sample of the cell from a patient; ascertaining the anti-apoptotic Bcl-2 protein status of the cell sample; and for a patient having a cell sample expressing a wild-type or elevated level or Bcl-2 proteins, administering to the patient a therapeutic regimen including a therapeutically effective amount of (I);
(5) a kit comprising a chemotherapeutic agent that interferes with DNA replication fidelity or cell-cycle progression of cells undergoing unwanted proliferation (I); and instructions and/or a label for conjoint administration of the chemotherapeutic agent and (I);
(6) a packaged pharmaceutical comprising (I) and instructions and/or a label for administration of (I) for the treatment of patients having tumors that express galectin-3.

- ACTIVITY :
Cytostatic; Anti-HIV; Antiinflammatory; Antipsoriatic; Gynecological; Ophthalmological.
- MECHANISM OF ACTION :
Galectin-3 inhibitor.
- USE :
(I) is useful to enhance the efficacy of a therapeutic treatment for proliferative disorders (such as renal cell cancer, Kaposi's sarcoma, chronic lymphocytic leukemia, lymphoma, mesothelioma, breast cancer, sarcoma, ovarian carcinoma, rectal cancer, throat cancer, melanoma, colon cancer, bladder cancer, mastocytoma, lung cancer, liver cancer, mammary adenocarcinoma, pharyngeal squamous cell carcinoma, prostate cancer, pancreatic cancer, gastrointestinal cancer, stomach cancer, chronic inflammation, psoriasis, endometriosis, benign hyperplasias, or diseases associated with corneal neovascularization); inhibit and reduce the growth of a tumor (chemoresistant tumor) cell (such as pancreatic tumor cell, lung tumor cell, prostate tumor cell, breast tumor cell, colon tumor cell, liver tumor cell, brain tumor cell, kidney tumor cell, skin tumor cell, ovarian tumor cell or leukemic blood cell, squamous cell carcinoma, non-squamous cell carcinoma, glioblastoma, sarcoma, adenocarcinoma, melanoma, papilloma, neuroblastoma, myeloma, lymphoma and leukemia); and enhance the pro-apoptotic effect of a chemotherapeutic agent that interferes with DNA replication fidelity or cell-cycle progression of a cancer cell or a cell undergoing unwanted proliferation (claimed). Effectiveness of modified pectin (I) to promote apoptosis was tested in DoHH2 cell line. The results showed that modified pectin increased the apoptosis over time.
- PHARMACEUTICALS :
Preferred Components: (I) is a carbohydrate, an antibody, a small molecule, or a peptide or polypeptide. (I) is an antisense or RNAi construct having a sequence corresponding to a portion of the mRNA sequence transcribed from the galectin-3 gene. The chemotherapeutic agent induces mitochondrial dysfunction and/or caspase activation and induces cell cycle arrest at G2/M in the absence of (I). The chemotherapeutic agent is an inhibitor of chromatin function, a DNA topoisomerase inhibitor (such as adriamycin, amsacrine, camptothecin, daunorubicin, dactinomycin, doxorubicin, eniposide, epirubicin, etoposide, idarubicin, irinotecan (CPT-11) or mitoxantrone), a microtubule inhibiting drug (taxane, paclitaxel, docetaxel, vincristin, vinblastin, nocodazole, epothilones or navelbine), a DNA damaging agent (such as actinomycin, amsacrine, anthracyclines, bleomycin, busulfan, camptothecin, carboplatin, chlorambucil, cisplatin, cyclophosphamide, cytoxan, dactinomycin, daunorubicin, docetaxel, doxorubicin, epirubicin, hexamethylmelamineoxaliplatin, iphosphamide, melphalan, merchlorehtamine, mitomycin, mitoxantrone, nitrosourea, plicamycin, procarbazine, taxol, taxotere, teniposide, triethylenethiophosphoramide or etoposide (VP16)), an antimetabolite (such as folate antagonists, pyrimidine analogs, purine analogs or

sugar-modified analogs), a DNA synthesis inhibitor (such as thymidilate synthase inhibitors (5-fluorouracil), dihydrofolate reductase inhibitor (methotrexate), DNA polymerase inhibitor (fludarabine)), DNA binding agent (an intercalating agent) or DNA repair inhibitor. The therapeutic regimen includes at least one additional chemotherapeutic agent that affects growth of the tumor cell in an additive or synergistic manner with (I). The additional chemotherapeutic agent is a corticosteroid (such as cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisone or prednisolone). The therapeutic regimen is a combinatorial therapy selected from ABV, ABVD, AC (Breast), AC (Sarcoma), AC (Neuroblastoma), ACE, ACe, AD, AP, ARAC-DNR, B-CAVe, BCVPP, BEACOPP, BEP, BIP, BOMP, CA, CABO, CAF, CAL-G, CAMP, CAP, CaT, CAV, CAVE ADD, CA-VP16, CC, CDDP/VP-16, CEF, CEPP(B), CEV, CF, CHAP, ChlVPP, CHOP, CHOP-BLEO, CISCA, CLD-BOMP, CMF, CMFP, CMFVP, CMV, CNF, CNOP, COB, CODE, COMLA, COMP, Cooper Regimen, COP, COPE, COPP, CP - Chronic Lymphocytic Leukemia, CP - Ovarian Cancer, CT, CVD, CVI, CVP, CVPP, CYVADIC, DA, DAT, DAV, DCT, DHAP, DI, DTIC/Tamoxifen, DVP, EAP, EC, EFP, ELF, EMA 86, EP, EVA, FAC, FAM, FAMTX, FAP, F-CL, FEC, FED, FL, FZ, HDMTX, Hexa-CAF, ICE-T, IDMTX/6- MP, IE, IfoVP, IPA, M-2, MAC-III, MACC, MACOP-B, MAID, m-BACOD, MBC, MC, MF, MICE, MINE, mini-BEAM, MOBP, MOP, MOPP, MOPP/ABV, MP - multiple myeloma, MP- prostate cancer, MTX/6-M0, MTX/6-MP/VP, MTX- CDDPAdr, MV - breast cancer, MV - acute myelocytic leukemia, M-VAC Methotrexate, MVP Mitomycin, MVPP, NFL, NOVP, OP A, OPPA, PAC, PAC-I, PA-CI, PC, PCV, PE, PFL, POC, ProMACE, ProMACE/cytaBOM, PRoMACE/MOPP, Pt/VM, PVA, PVB, PVDA, SMF, TAD, TCF, TIP, TTT, Topo/CTX, VAB-6, VAC, VACAdr, VAD, VATH, VBAP, VBCMP, VC, VCAP, VD, VelP, VIP, VM, VMCP, VP, V-TAD, 5 + 2, 7 + 3, 8 in 1. The chemotherapeutic agent is tamoxifen, 4-(3-chloro-4-fluorophenylamino) -7-methoxy-6-(3-(4-a-morpholinyl)propoxy)quinazoline, 4-(3-ethynylphenylamino)-6,7-bis(2-methoxyethoxy)quinazoline, hormones, steroids, steroid synthetic analogs, 17alpha -ethinylestradiol, diethylstilbestrol, testosterone, prednisone, fluoxymesterone, dromostanolone propionate, testolactone, megestrolacetate, methylprednisolone, methyl-testosterone, prednisolone, triamcinolone, chlorotrianisene, hydroxyprogesterone, aminoglutethimide, estramustine, medroxyprogesteroneacetate, leuprolide, flutamide, toremifene, Zoladex, antiangiogenics, matrix metalloproteinase inhibitors, VEGF inhibitors, ZD6474, SU6668, SU11248, anti-Her-2 antibodies (ZD1839 and OSI774), EGFR inhibitors, EKB-569, hnclone antibody C225, src inhibitors, bicalutamide, epidermal growth factor inhibitors, Her-2 inhibitors, MEK-1 kinase inhibitors, MAPK kinase inhibitors, P13 inhibitors, PDGF inhibitors, combretastatins, MET kinase inhibitors, MAP kinase inhibitors, inhibitors of non-receptor and receptor tyrosine kinases (imatinib), inhibitors of integrin signaling, and inhibitors of insulin-like growth factor receptors. The therapeutic regimen includes ionizing radiation. (I) is a partially depolymerized pectin (substantially demethoxylated polygalacturonic acid which is interrupted with rhamnose residues) comprising a homogalacturonan backbone and neutral sugar side chains having a low degree of branching dependent from the backbone. The partially depolymerized pectin comprises a pH modified pectin, an enzymatically modified pectin, and/or a thermally modified pectin or a modified citrus pectin. The partially depolymerized pectin has a molecular weight of 1-500 (preferably 80-100) kilodaltons (kDa) and less than 5% ethanol.
Preferred method: The chemotherapeutic agent is cytostatic when administered in the absence of (I) but is rendered cytotoxic when administered conjointly with (I). The therapeutic regimen includes a chemotherapeutic agent that is influenced by the Bcl-2 or Bcl-xL status of the cell for cytotoxicity. (I) inhibits signal transduction by galectin-3 and binds to galectin-3 with a Kd of 10 <-> <6>M or less. (I) inhibits interaction of galectin-3 with Bcl-2, inhibits phosphorylation of galectin-3 at Ser-6, inhibits translocation of

galectin-3 between the nucleus and cytoplasm or inhibits galectin-3 translocation to the perinuclear membranes, inhibits expression of galectin-3. The median effective dose (ED50) for the therapeutic treatment or chemotherapeutic agent when used in combination with the galectin-3 inhibitor is at least 5 fold less than the ED50 for the therapeutic treatment or chemotherapeutic agent alone. The therapeutic index (TI) for the therapeutic treatment or chemotherapeutic agent when used in combination with the galectin-3 inhibitor is at least 5 fold greater than the TI for the chemotherapeutic agent alone. (I) is administered simultaneously with the therapeutic treatment, before or after administering the therapeutic treatment.

- ADMINISTRATION :
Administration of (I) is parenteral, intravenous infusion, oral, via inhalation, topical, subcutaneous injection, intramuscular or intraperitoneal injection or infusion (claimed). (I) can also be administered transdermally, intravaginally or intrarectally. No dosage is given.

IC - A61K31/00
ICAI- A61K31/00; A61K31/70; A61K31/718; A61K31/732; A61K36/752; A61K45/00; A61K45/06; A61P35/00; A61P43/00
ICCI- A61K31/00; A61K31/70; A61K31/716; A61K31/732; A61K36/185; A61K45/00; A61P35/00; A61P43/00
PR - US20030474562P 20030530; US20030461006P 20030407; US20030408723 20030407; US20040819901 20040407; US20070803150 20070511
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW AL HR LI LT LV MK
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (GLYC-N) GLYCOGENESYS INC
- (PROS-N) PROSPECT THERAPEUTICS INC
INW - CHANG Y; SASAK V
AN - 2004-775563 [76]

14/31 - (C) WPI / Thomson
PN - WO2004064777 A2 20040805 DW200457
EP1592432 A2 20051109 DW200573
US2005282773 A1 20051222 DW200603
JP2006515647 A 20060601 DW200637
WO2004064777 A3 20050909 DW201217
TI - Composition used for treating e.g. renal cancer, sarcoma, Kaposi's sarcoma, chronic leukemia, breast cancer, mammary adenocarcinoma and ovarian carcinoma, comprises modified polysaccharides in combination with anticancer drugs
AB - NOVELTY :
Combination (A) comprises modified polysaccharide (I) of molecular weight of 5-60 kD with < 5% esterified saccharide backbone and containing repeating units comprising uronic acids, at least one attached neutral monosaccharide and at least one side chain of oligosaccharides attached to the backbone of neutral oligosaccharides or their derivatives, combined with an anticancer drug (II).
- DETAILED DESCRIPTION :
An INDEPENDENT CLAIM is also included for the preparation of (I).
- ACTIVITY :
Cytostatic.
Tests are described, but no results are given.
- MECHANISM OF ACTION :
None given.
- USE :
Used for treating cancer (renal cancer, sarcoma, Kaposi's sarcoma, chronic leukemia, breast cancer, mammary adenocarcinoma, ovarian

carcinoma, rectal cancer, colon cancer, bladder cancer, prostrate cancer, melanoma, mastocytoma, lung cancer, throat cancer, pharyngeal squamous cell carcinoma, gastrointestinal cancer or stomach cancer) and for inhibiting metastasis (all claimed).

- ADVANTAGE :
(I) reversibly interacts with (II) and effectively delivers (II) along with itself, improving the pharmacological index as compared to that of (II) alone.
- ORGANIC CHEMISTRY :
Preparation: Claimed preparation of (I) comprises selection of a composition having average molecular weight of 45-400 kD with a saccharide backbone (also comprising uronic acid saccharides and neutral monosaccharides and having 5-95% esterification and side chains) and at least one oligosaccharide side chain having secondary branching and performing a three-part chemical reaction consisting of depolymerizing the saccharide backbone, debranching the side chains and de-esterifying the saccharide acid esters.
Preferred Components: The uronic acid saccharide of the backbone further comprises xylose, arabinose, ribose, lyxose, glucose, allose, altrose, idose, talose, galactose, gulose, mannose, fructose, psicose, sorbose or tagatose. The uronic acid saccharides further comprise galacturonic acid. The neutral monosaccharides further comprise rhamnose. The average molecular weight of (I) is 5-60 (preferably 25) kD. The backbone is de-esterified.
The oligosaccharide side chain (preferably one in twenty neutral monosaccharides) is attached to the backbone via a neutral (preferably rhamnose) monosaccharide. The oligosaccharide side chain further comprises galactose, mannose, glucose, allose, altrose, idose, talose, gulose, arabinose, ribose, lyxose, xylose, fructose, psicose, sorbose, tagatose, rhamnose, fucose, quinovose, 2-deoxy-ribose or their derivatives and terminates with galactose, arabinose, rhamnose, glucose or their derivatives (preferably with a galactose or a feruloyl group). The oligosaccharide side chain either lacks secondary branches of saccharides or has multiple secondary branches.
Preferred Method: Depolymerization of the composition is one part of the three-part chemical reaction, which further comprises treating the composition with an alkaline solution to provide a final pH of 10. The debranching and de-esterifying occurs following the depolymerization and further comprise treating the depolymerized composition with time temperature controlled reaction at a pH of 10 and treating with an acidic solution with time temperature controlled reaction at pH 3.
- PHARMACEUTICALS :
Preferred Compounds: (II) is selected from aminoglutethimide, amsacrine anastrozole, asparaginase, bicalutamide, bleomycin, buserelin, busulfan, capecitabine, carboplatin, carmustine, chlorambucil, cisplatin, cladribine, clodronate, cyclophosphamide, cyproterone, cytarabine, dacarbazine, dactinomycin, daunorubicin, dexamethasone, diethylstilbestrol, docetaxel, doxorubicin, epirubicin, estramustine, etoposide, exemestane, filgrastim, fludarabine, fludrocortisone, fluorouracil, fluoxymesterone, flutamide, gemcitabine, goserelin, hydroxyurea, idarubicin, ifosfamide, imatinib, interferon alpha, irinotecan, letrozole, leucovorin, leuprolide, levamisole, lomustine, mechlorethamine, medroxyprogesterone, megestrol, melphalan, mercaptopurine, mesna, methamycins, methotrexate, mitomycin, mitotane, mitoxantrone, nilutamide, octreotide, oxaliplatin, paclitaxel, pamidronate, pentostatin, plicamycin, porfimer, procarbazine, raltitrexed, rituximab, streptozocin, tamoxifen, temozolomide, teniposide, testosterone, thioguanine, thiotepa, topotecan, trastuzumab, tretinoin, vinblastine, vincristine, vindesine, vinorelbine, daunomycin, doxorubicin or vinblastine or a taxine drug comprising taxol, taxotere, spicatin, taxane-2,13-dione, 5beta , 9beta ,10beta -trihydroxy-, cyclic 9,10-acetal with acetone, acetate, taxane-2,13-dione, 5beta 9beta , 10beta -trihydroxy-trihydroxy-, cyclic 9,10-acetal with acetone,

taxane-2beta ,5beta 9beta ,10beta -tetrol, cyclic 9,10-acetal with acetone, taxane, cephalomannine-7-xyloside, 7-epi-10-deacetylcephalomannine, 10-deacetylcephalomannine, cephalomannine, taxol B, 13-(2', 3'-dihydroxy-3'-phenylpropionyl)baccatin III, yunnanxol, 7-(4-azidobenzoyl)baccatin III, N-debenzoyltaxol A, O-acetylbaccatin IV, 7-(triethylsilyl)baccatin III, 7,10-di-O-[(2,2,2-trichloroethoxy) carbonyl]baccatin III, baccatin III 13-O-acetate, baccatin diacetate, baccatin, baccatin VII, baccatin VI, baccatin IV, 7-epi-baccatin III, baccatin V, baccatin I, baccatin III, baccatin A, 10-deacetyl-7-epitaxol, epitaxol, 10-deacetyltaxol C, 7-xylosyl-10-deacetyltaxol, 10-deacetyltaxol-7-xyloside, 7-epi-10-deacetyltaxol, 10-deacetyltaxol or 10-deacetyltaxol B.

- ADMINISTRATION :
Administration is oral, intravenous, subcutaneous, topical, intraperitoneal and/or intramuscular (claimed) at 10-1000 mg/kg/day.

- EXAMPLE :
None given.

IC - A61K31/715; C08B37/00
ICAI- A61K31/337; A61K31/513; A61K31/715; A61K45/06; A61K47/36; A61P35/00; C08B37/00
ICCI- A61K; A61K31/715; C08B37/00
PR - US20030440496P 20030116; WO2004US00747 20040114
DS - AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW AL LI LT LV MK
DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (PROP-N) PRO-PHARM INC
INW - PLATT D
AN - 2004-593312 [57]

15/31 - (C) WPI / Thomson
PN - WO03063620 A2 20030807 DW200358
NL1019890C C2 20030807 DW200367
AU2003208662 A1 20030902 DW200422
WO03063620 A3 20031120 DW201209
TI - Edible coating layer for composite foods, e.g. pastry, pizzas, meat rolls or salad rolls, comprises gel-forming biopolymer in gelled condition
AB - NOVELTY :
A moisture resistant edible coating layer has gel-forming biopolymer in gelled condition.

- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for:
(1) a food consisting of >=2 components having different moisture contents separated by the inventive coating layer; and
(2) a method for preparation of the food in which components having different moisture contents are prepared separately and combined and the coating layer is applied onto surface of the components.

- USE :
Used for composite foods (claimed), e.g. pastry, pizzas, meat rolls or salad rolls.

- ADVANTAGE :
The invention prevents or reduces moisture migration of the component having higher moisture content to that having low moisture content.

- DESCRIPTION OF DRAWINGS :
The figure shows casting of knappertjes in bees wax.

- FOOD :
Preferred Composition: The biopolymer is >=80 wt.% of the coating layer. It is a protein or carbohydrate.
Preferred Method: The coating layer is applied by spreading, spraying, spouting, atomizing, immerging, brushing, or rolling.

- POLYMERS :
Preferred Compounds: The polymer consists of modified or derivatized casein, whey protein, ovalbumin, myosin, actin, albumin, gelatin, collagen, inulin, fructo-oligosaccharide, soy polysaccharide, cellulose, starch, agar-agar, alginate, carrageenan, xanthan gum, gum-arabic, locust bean gum, pectin, (arabino)xylanes, or pectin-casein polymers, preferably gelatin or starch.
- EXAMPLE :
Pre-dried knappertjes were provided with a composition for a coating layer by applying a solution of gelatin in water onto surface of the biscuit. A commercial gelatin sheet was soaked in water and then applied into a knappertje. The applied layer was dried and then allowed to cool. The knappertjes applied with the coating layer were cast in bees wax. They were stored in climate chamber. The knappertjes provided with the gelatin coating layer reduced the rate of moisture migration relative to non-treated biscuits.

IC - A23P1/08; A21D13/00; A21D13/08; A21D13/088; A23L1/00
ICAI- A21D13/00; A21D15/08; A23L1/00; A23P1/08
ICCI- A21D13/00; A21D15/00; A23L1/00; A23P1/08
PR - NL20021019890 20020201
DS - AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
DN - AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
PAW - (NEDE) NEDERLANDSE ORG TOEGEPAST
- (NEDE) NEDERLANDSE ORG TOEGEPAST NATUURWETENSCH
INW - BOUMANS J W; BOUMANS J W L; DE JONG G A H; DON J A C; NOORT M W; PLIJTER J J; PLIJTER-SCHUDDEMAT J; VAN SON M W L; VAN SON M W L J
AN - 2003-618333 [58]

16/31 - (C) WPI / Thomson
PN - JP2002238525 A 20020827 DW200332
TI - Coating agent for foodstuff to suppresses generation of mold and bacteria contains pectin jelly and liquid sugar
AB - NOVELTY :
Coating agent for foodstuff contains pectin jelly and liquid sugar.
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are included for the following:
(1) foodstuffs coated with the coating agent; and
(2) a foodstuffs processing method which involves contacting solution containing dissolved milt protein having antibacterial effect, and coating the coating agent containing pectin jelly, liquid sugar, and/or milt protein, on the surface of the foodstuff.
- USE :
For coating foodstuffs.
- ADVANTAGE :
The coating agent suppresses generation of mold, and propagation of bacteria. The coating agent can be easily coated to the foodstuff, without damaging foodstuff and uniform film which has suitable glossiness is provided to the surface of the foodstuff under favorable condition for long period of time. The coating agent is used on foodstuff without wastage, and yield is improved. The coating agent provides glossiness, beautiful appearance and excellent preservability to the foodstuff.
- FOOD :
Preferred Ingredients: The coating agent further contains milt protein having antibacterial effect.
The milt protein is extracted from testis of vertebrate such as fish, salmon, trout, herring, mackerel and chicken.
Lysozyme is further added to the coating agent.

ICAI- A23B7/16; A23G3/00; A23G3/34; A23L1/00; A23L3/3526; A23L3/3562
ICCI- A23B7/00; A23G3/00; A23G3/34; A23L1/00; A23L3/3463

PR - JP20010044210 20010220
PAW - (DESS-N) DESSERT LAND KK
INW - INOUE S
AN - 2003-335605 [32]

17/31 - (C) WPI / Thomson
PN - WO02076474 A1 20021003 DW200278
US2003064957 A1 20030403 DW200325
US6645946 B1 20031111 DW200382
EP1383516 A1 20040128 DW200409
US2004038916 A1 20040226 DW200416
US2004038935 A1 20040226 DW200416
JP2004525143 A 20040819 DW200455
US7012068 B2 20060314 DW200620
EP2301556 A1 20110330 DW201124
JP4744782B2 B2 20110810 DW201154
EP1383516 B1 20111109 DW201173
ES2376739T T3 20120316 DW201310
TI - Pharmaceutical formulation useful for the treatment of cancer comprises a mixture of galactomannan polysaccharide and a chemotherapeutic agent
AB - NOVELTY :
A pharmaceutical formulation comprises a mixture of galactomannan (GM) polysaccharide and a chemotherapeutic agent.
- ACTIVITY :
Cytostatic.
Albino swiss mice were used as the experimental animals for measuring toxicity of formulation. There were a total of seven groups of 10 animals each, subcutaneously implanted with COLD 205 human colon tumor xenografts. The groups were treated on day 13 after tumor implantation (except for the last group that was treated for comparative purposes with a lower dose of galactomannan alone) as follows: Saline (NaCl. 0.9%) (control), 5-FU (75 mg/kg), Galactomannan (120 mg/kg), 5-FU (75 mg/kg) + Galactomannan (120 mg/kg), 5-FU (375 mg/kg), 5-FU (375 mg/kg) + Galactomannan (120 mg/kg) and Galactomannan (60 mg/kg) for five consecutive days. The animal response in the five groups in terms of median days to 2X doubling of tumor weight/animals with small tumors/tumor complete regression were: for saline 12.5/0/0, for 5-FU: 23.7/1/0, for galactomannan 15.5/1/0, for 5-FU+GM 56.0/4/1 and for GM 20/0/0 respectively.
- MECHANISM OF ACTION :
None given in the source document.
- USE :
The formulation is used in the treatment of cancers e.g. chronic leukemia, breast cancer, sarcoma, ovarian carcinoma, rectal cancer, throat cancer, melanoma, colon cancer, bladder cancer, lung cancer, mammary adenocarcinoma, gastrointestinal cancer, stomach cancer, prostate cancer, pancreatic cancer and Kaposi's sarcoma in humans (claimed).
- ADVANTAGE :
The formulation has a reduced toxicity and has enhanced efficacy of greater than 50, preferably greater than 80% compared with the same dose of the agent without galactomannan. The formulation containing the galactomannan polysaccharide and the chemotherapeutic agent provides synergistic effects to target and kill tumor cells.
- ORGANIC CHEMISTRY :
Preferred Compounds: GM has a molecular weight 20,000 - 600,000 (preferably 40,000 - 200,000) Dalton. The average molecular weight of GM is 48,000 (preferably 215,000) Dalton. GM is a derivative of an isolate from Gleditsia triacanthos, Medicago falcata, or Cyamopsis tetragonoloba. The ratio of mannose to galactose is 1-3 (preferably 2.2-1).
Preferred Formulation: The ratio of GM and chemotherapeutic agent is 0.1-10.1 w/w.

- ADMINISTRATION :
The formulation is administered parenterally, in the form of a powder or liquid (claimed). No dosage given.
- SPECIFIC COMPOUNDS :
beta -1,4 D-galactomannan is specifically claimed as GM. Adriamycin and 5-fluorouracil (5-FU) are specifically claimed as the chemotherapeutic agent.

ICAI- A01N43/04; A61K31/505; A61K31/513; A61K31/70; A61K31/704; A61K31/715; A61K31/736; A61K36/00; A61K45/00; A61K45/06; A61K47/36; A61K9/08; A61K9/14; A61P35/00; C07H1/08; C07H13/00
ICCI- A01N43/02; A61K; A61K31/505; A61K31/513; A61K31/70; A61K31/7028; A61K31/715; A61K31/736; A61K45/00; A61K47/36; A61K9/08; A61K9/14; A61P35/00
PR - US20010317092P 20010904; US20010818596 20010327; US20020108237 20020327; US20030649130 20030827; US20030649131 20030827
DS - AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR LI
DN - JP
PAW - (GALE-N) GALECTIN THERAPEUTICS INC
- (KLYO-I) KLYOSOV A
- (PLAT-I) PLATT D
- (PROP-N) PRO-PHARM INC
INW - KLYOSOV A; PLATT D
AN - 2002-723494 [78]

18/31 - (C) WPI / Thomson
PN - WO0247612 A2 20020620 DW200255
US2002119928 A1 20020829 DW200259
AU4326702 A 20020624 DW200267
AU2002243267 A8 20051006 DW200612
WO0247612 A3 20021227 DW201204
TI - Novel dietary supplements for use as immunostimulants, containing beta-glucan and colostrum and/or lactoferrin
AB - NOVELTY :
Novel dietary supplements containing beta -glucan and colostrum and/or lactoferrin for supporting and promoting strong immune systems
- ACTIVITY :
Immunostimulant.
- MECHANISM OF ACTION :
No specific mechanisms given in source material.
- USE :
The compositions are useful for supporting and promoting strong immune systems. The compositions are useful for providing a first effect comprising regulation of the immune system, regulation of cytokine release, prevention of autoimmune response from intestinal pathogens, promotion of phagocytosis by neutrophils, stimulation of B cell and antibody secretion, inhibition of mast cell enzyme involved in allergic airway response, enhancement of natural killer cell activity, stimulation of muscle protein synthesis, inhibition of muscle protein breakdown, stimulation of wound healing, stimulation of tissue repair, induction of cartilage formation and bone repair, anti-inflammatory effects, bioregulation during trauma stress, enhancement of hematopoietic activity, increase in insulin-like growth factor in tissues, antidiarrheal effect on gastrointestinal tract infection, stimulation of gastrointestinal tract growth, improvement in function of the gastrointestinal tract, promotion of the growth of beneficial gastrointestinal tract bacteria, lowering blood cholesterol, improving glucose tolerance, reducing average blood glucose in noninsulin dependent diabetics, stimulation of glucose uptake by muscles, inhibition of the binding of bacteria to a host tissue, inhibition of the growth of bacteria, protection against viruses, enhancing activity of antibiotics, antifungal effects, anti-amebic effects, prevention of tumor development, inhibition of tumor cell growth or metastasis, enhancement of natural killer cell toxicity to tumors, improvement in Alzheimer's dementia, antioxidant effects and reaction against

bacterial toxins.
The composition comprising beta -glucan and colostrum and/or lactoferrin has a second effect comprising enhancing bile acid excretion, enhancing cholesterol excretion, reducing atherosclerosis, binding heavy metals, stimulation of immune function, resistance to infection, suppression of infection, increase of tissue repair and healing, promotion of body health and athletic performance, promotion of gastrointestinal tract health, promotion of blood vessel health, promotion of glucose utilization and blood sugar balance, improved cancer inhibition, improved metal function and improved toxin related activities (all claimed).
The compositions react with specific cell receptors that cause cells to engulf and destroy bacteria and cellular debris and supplies and enhances natural antibodies. The composition helps regulate the number and activities of circulating immune cells and initiates communication in the immune system which releases chemical messengers to fight infection. The composition supports the immune cell growth and proliferation in the GI tract and binds iron so that it starves bad bacteria, re-routing the iron to be more bio-available for beneficial uses. The composition helps the body remove heavy metals and toxins from cells and help balance the immune system.

- ADVANTAGE :
The compositions are fast acting, they energize a cascade of immune responses beginning in the mouth and proceeding throughout the body and they optimize the response of natural killer cells B-cells and T-cells which seek out and destroy foreign substances.
- ORGANIC CHEMISTRY :
Preferred Composition: The formulation further comprises lactoferrin and/or citrus pectin. The formulation is adapted for humans and comprises 5-83.3 (especially 9.63) wt% colostrum, 0.909-6.67 (especially 0.642) wt% lactoferrin, 0.1-1.25 (especially 0.321) wt% citrus pectin and 0.001-10 (especially 1.28) wt% beta -glucan. The composition may further contain citric acid (preferably 0.25-2.4, especially 0.626 wt%), dextrose (preferably 35.8-88.3, especially 83.3 wt%), magnesium stearate (preferably 0.25-1.5, especially 0.482 wt%), silicon dioxide (preferably 0.25-1.5, especially 0.482 wt%) and stearic acid (preferably 1.67-2.5, especially 1.93 wt%) and optionally carriers, diluents and flavorings (preferably 0.15-1.31, especially 1.31 wt%). The composition is especially formulated as a chewable delivery system and may further comprise a complex of essential saccharides, preferably in oligomeric or polymeric forms as found in e.g. gum tragacanth or alginic acid.
- ADMINISTRATION :
Administration is oral, preferably by chewing.
- EXAMPLE :
A composition comprises (in weight %) 0.626% citric acid, 83.3% dextrose, 0.482% magnesium stearate, 0.482% silicon dioxide, 1.930% stearic acid, 0.321% citrus pectin, 0.642% lactoferrin, 1.310% strawberry natural flavoring, 9.630% colostrum and 1.280% beta -glucan.

IC - A61K39/395; A23G3/00; A23L1/05; A23L1/30; A61K35/20; A61K38/00; A61K47/00; C07K1/00
ICAI- A23L1/305; A23L1/308; A61K35/20; A61K38/40; A61K45/06
ICCI- A23L1/305; A23L1/308; A61K35/20; A61K38/40; A61K45/00
PR - US20000244029P 20001027; US20010001439 20011025
DS - AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
DN - AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
PAW - (MANN-N) MANNATECH INC
- (MCAN-I) MCANALLEY B H
INW - MCANALLEY B H
AN - 2002-519746 [55]

19/31 - (C) WPI / Thomson
PN - DE10057976 A1 20020529 DW200255
WO0242484 A2 20020530 DW200255
AU3318902 A 20020603 DW200263
EP1373543 A2 20040102 DW200409
US2004072791 A1 20040415 DW200426
KR20040004446 A 20040113 DW200434
JP2004519220 A 20040702 DW200443
DE10057976 B4 20050203 DW200510
AU2002233189B B2 20060907 DW200712
JP2008067712 A 20080327 DW200825
JP4091652B2 B2 20080528 DW200843
EP1944033 A2 20080716 DW200849
EP1944033 A3 20080730 DW200852
KR100797242B B1 20080123 DW200901
JP4194839B2 B2 20081210 DW200903
US2009186833 A1 20090723 DW200950
EP1944033 B1 20090729 DW200951
US7576070 B2 20090818 DW200955
DE50115018G G 20090910 DW200959
ES2329515T T3 20091126 DW200979
EP1373543 B1 20100203 DW201010
DE50115336G G 20100325 DW201022
EP2192190 A1 20100602 DW201036
EP2308989 A2 20110413 DW201127
EP2308989 A3 20110615 DW201139
US7960351 B2 20110614 DW201139
US2011195918 A1 20110811 DW201153
EP2192190 B1 20111026 DW201170
WO0242484 A3 20031016 DW201208
ES2374897T T3 20120223 DW201228
IL155767 A 20120628 DW201245
CA2428473 C 20121113 DW201277

TI - Production of pectin hydrolysis products useful especially for infection control comprises two-stage hydrolysis of a pectin or pectin-containing plant material with pectin-hydrolysing enzymes

AB - NOVELTY :
Pectin hydrolysis products are produced by the two-stage hydrolysis of a pectin or pectin-containing plant material with pectin-hydrolysing enzymes.

- DETAILED DESCRIPTION :
Production of pectin hydrolysis products comprises:
(a) treatment of a pectin or pectin-containing plant material in aqueous solution or suspension with a pectin-hydrolysing enzyme (A); and
(b) treatment of the product with a pectin-hydrolysing enzyme (B).
The products obtained contain galacturonides with at least one 4,5-unsaturated galacturonic acid molecule and are esterified with methanol to >= 20%.
An INDEPENDENT CLAIM is also included for a pharmaceutical or dietetic preparation containing the pectin hydrolysis products and a carrier.

- ACTIVITY :
Antibacterial.
No data is given.

- MECHANISM OF ACTION :
None given in the source material.

- USE :
The pectin hydrolysis products are useful for blocking the adhesion of harmful substances or organisms to mammalian cells, especially for the control of infections. They can be incorporated in human food or animal feed.

- ADVANTAGE :
The process gives higher product yields than prior art processes, see

e.g. which also gives rise to environmental problems by virtue of the high content of non-usable byproducts.
- BIOTECHNOLOGY :
Preferred Starting Material: The pectin used is a citrus, apple or sugar beet pectin. The pectin-containing plant material is shredded sugar beet, apple residues or dried residues from the manufacture of orange, lemon or other citrus juice.
Preferred Enzymes: Enzyme (A) is an endopolygalacturonase or a pectinlyase (EC 4.2.2.10); enzyme (B) is endopolygalacturonase (EC 3.2.1.15) or a pectinlyase; and enzyme (C) is a pectinesterase (EC 3.1.1.11).
Preferred Process: The liquid hydrolysis products obtained in stage (b) are treated in a stage (c) with an enzyme (C). The products of stage (b) or (c) are separated from insolubles by filtration and/or centrifugation and then converted into a dry form.
- EXAMPLE :
Citrus pectin solution (1 l; 30 g highly esterified pectin in 1 l H 2O) is treated with a pectinlyase (e.g. Rohapect PTE) (0.3 ml) and the stirred solution is incubated at 45[deg]C and pH 5 for 2 hours. Then, an endopolygalacturonase (e.g. Pectinase PL) (0.75 ml) is added and the incubation is continued for 3 hours. The enzymes are deactivated by heating at 95[deg]C, the mixture is centrifuged and the filtrate is evaporated to give a solid product (25.8 g; 75.6% yield). Analysis of this product showed 3.6% carbohydrate DP 1; 83.9% galacturonide (46% unsaturated content); 80.4% DP 2-10; 16.0% DP above 10; 72% degree of esterification; 3% salt content; 1.7% crude protein; and 4.6% water content. This product prevented the adhesion of Staphylococcus aureus and E. coli to human uroepithelial cells by more than 95%, whereas raffinose, nystose and isomelezitose showed no reduction in the microbial adhesion.

IC - C12P19/04; C12P19/14; A23L1/0524; A61K31/715; C08B37/00; C08B37/06
ICAI- A23B4/00; A23C9/123; A23C9/13; A23C9/152; A23K1/16; A23L1/0524; A23L1/30; A61K31/70; A61K31/7012; A61K31/715; A61K31/732; A61P1/12; A61P31/04; A61P35/00; A61P35/02; A61P35/04; A61P37/08; A61P43/00; C07H13/02; C08B37/00; C08B37/06; C12P19/00; C12P19/04; C12P19/14
ICAN- A23B4/00
ICCI- A23K1/16; A23L1/052; A23L1/30; A61K31/70; A61K31/715; A61K31/732; A61P1/00; A61P31/00; A61P35/00; A61P37/00; A61P43/00; C07H13/00; C08B37/00; C12P19/00
ICCN- A23B4/00
PR - DE20001057976 20001122; DE20000057976 20001122
DS - AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR LI
DN - AU CA IL JP KR US
PAW - (DNON) NUTRICIA NV
- (SUED) SUEDZUCKER AG
- (SUED) SUEDZUCKER AG MANNHEIM/OCHSENFURT
- (KUNZ-I) KUNZ M
- (MUNI-I) MUNIR M
- (VOGE-I) VOGEL M
INW - KUNZ M; MUNIR M; VOGEL M
AN - 2002-509938 [55]

20/31 - (C) WPI / Thomson
PN - EP1184033 A1 20020306 DW200241
WO0217886 A1 20020307 DW200241
AU1044902 A 20020313 DW200249
EP1315479 A1 20030604 DW200337
KR20030029900 A 20030416 DW200353
US2003175335 A1 20030918 DW200362
BR0113663 A 20040106 DW200409
CN1452481 A 20031029 DW200409
JP2004507581 A 20040311 DW200419
NZ524247 A 20041224 DW200506
MXPA03001855 A 20050901 DW200615

US7041315 B2 20060509 DW200632
EP1315479 B1 20061115 DW200677
DE60124563E E 20061228 DW200703
AU2002210449B B2 20061026 DW200723
ES2274905T T3 20070601 DW200738
DE60124563T T2 20070920 DW200764
MX246036 B 20070528 DW200843
JP4780898B2 B2 20110928 DW201163

TI - Film composition useful for the manufacture of hard enteric capsules comprises pectin, a second film-forming polymer and a setting system

AB - NOVELTY :
A film composition (I) comprises pectin (a), a second film-forming polymer (b) and a setting system (c).

- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for the following:
(1) a film-forming aqueous solution (S) comprising (I); and
(2) manufacturing of the hard enteric capsules from an aqueous solution containing 10 - 50 wt.% of the film-forming composition by a dip molding process with a conventional hard gelatin capsule production equipment at 40 - 70[deg]C.

- USE :
In a film-forming aqueous solution for the manufacture of hard enteric capsule; and in the banding process for the manufacture of the enteric capsules (claimed), in the production of soft capsules, and also useful in other pharmaceutical, veterinary, food, cosmetic and other products like films for wrapping food, aspics and jellies.

- ADVANTAGE :
The composition has both sufficient setting ability for industrial hard capsule production and enteric properties. The capsules produced form the composition can resist dissolution for at least 2 hours in in-vitro disintegration tests at pH 1.2 and are easily soluble at pH 6.8. The pectin used as enteric material is water soluble thus the aqueous solutions of the film-forming compositions are stable. The pectin itself further provides the properties of a setting agent. The capsules also have improved mechanical properties. The dip mold solution prepared from the composition has an increased content of solid material.

- ORGANIC CHEMISTRY :
Preferred Components: (I) additionally comprises coloring agents and/or flavoring agents and plasticizers. (c) contains (a).
Preferred Composition: The film-forming aqueous solution (S) comprises (I) at 10 - 50, preferably 15 - 40 wt.%.

- INORGANIC CHEMISTRY :
Preferred Components: (c) contains divalent cation salts (preferably magnesium and/or calcium salts). Preferred Solution: (S) contains the divalent cations in an amount of (0.01 - 0.5) wt.%.

- POLYMERS :
Preferred Components: (b) is selected from gelatin, pullulan, polyvinyl alcohol, hydroxypropylated starch, hydroxyethylated starch, hydroxypropyl methylcellulose, hydroxypropyl cellulose, methyl cellulose, hydroxyethyl cellulose and/or hydroxyethyl methylcellulose. (c) additionally comprises a setting agent (D) selected from carrageenan and/or gellan gum.
Preferred Composition: (I) contains (%): (a) (5 - 50, preferably 10 - 40) and (b) (60 - 95, preferably 50 - 85).
Preferred Solution: (S) contains (D) (0.05 - 2) wt.%.

- EXAMPLE :
Gellan gum (3.85 g) and LM (low methoxyl) pectin (150 g) were dispersed into demonized water (2 kg) at room temperature. The mixture was heated to 85[deg]C for solubilization. After debubbling, the solution was equilibrated at 60[deg]C. An aqueous gelatin solution (2.66 kg) containing pectin (32 wt.%) was prepared by conventional method for hard gelatin capsule manufacturing and equilibrated at 60[deg]C. The two solutions were mixed and debubbled. The final

solution contained (wt.%) pectin (3.12), gelatin (17.7) and gellan gum (0.08). Natural hard enteric capsules were then produced by pouring the solution into a dipping dish of a pilot machine of conventional hard gelatin capsule production equipment, and keeping at 55[deg]C. The final capsule had a film composition of (wt.%) pectin (12.8), gelatin (72.4), gellan gum (0.33) and moisture (14.5). The capsules were then filled with lactose containing 0.1% indigotine for evaluation of enteric performance by in-vitro disintegration; or with acetomorphin for evaluation by dissolution tests, first 2 hours in simulated gastric fluid (pH 1.2) and then in simulated intestinal fluid (pH 6.8). The capsules were finally banded with the same solution. The disintegration result (disintegration time) was more than 2 hours at pH 1.2 and 4.8 minutes at pH 6.8. Thus the results indicated excellent gastric resistance of the capsules.

IC - A61K9/48
ICAI- A61J3/07; A61K31/337; A61K47/36; A61K47/38; A61K9/08; A61K9/48; A61K9/52; A61P1/00; A61P1/16; A61P35/00; C07D305/00; C07D305/14; C08J5/18; C08L101/00; C08L3/08; C08L5/00; C08L5/06; C08L89/06
ICCI- A61J3/07; A61K31/337; A61K47/36; A61K47/38; A61K9/08; A61K9/48; A61K9/52; A61P1/00; A61P35/00; C07D305/00; C08J5/18; C08L101/00; C08L3/00; C08L5/00; C08L89/00
PR - EP20000402423 20000901
DS - AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI EA GH GM KE LS MW MZ OA SD SL SZ TR TZ UG ZW
DN - AE AG AL AU BA BB BG BR BZ CA CN CO CR CU CZ DM DZ EC EE GD GE HR HU ID IL IN IS JP KP KR LC LK LR LT LV MA MG MK MN MX NO NZ PH PL RO SG SI SK TT UA US UZ VN YU ZA
PAW - (WARN) WARNER LAMBERT CO
- (WARN) WARNER LAMBERT CO LLC
- (CADE-I) CADE D
- (HEXX-I) HE X
- (SCOT-I) SCOTT R A
INW - CADE D; HE X; SCOTT R; SCOTT R A
AN - 2002-373652 [41]

21/31 - (C) WPI / Thomson
PN - WO0215715 A1 20020228 DW200234
NL1016018C C2 20020301 DW200237
AU9436701 A 20020304 DW200247
EP1311165 A1 20030521 DW200334
CZ20030475 A3 20030813 DW200357
HU0300827 A2 20030929 DW200369
US2004037922 A1 20040226 DW200416
JP2004506435 A 20040304 DW200417
CN1604743 A 20050406 DW200554
RU2271669 C2 20060320 DW200622
EP1311165 B1 20061122 DW200677
DE60124729E E 20070104 DW200705
AU2001294367B B2 20060720 DW200707
ES2277607T T3 20070716 DW200753
CN1311758C C 20070425 DW200757
DE60124729T T2 20070913 DW200761
IL154489 A 20070724 DW200762
US7323202 B2 20080129 DW200810
CA2420473 C 20081104 DW200876
JP2011103896 A 20110602 DW201137
JP4748921B2 B2 20110817 DW201154
TI - Composition for coating foodstuffs, comprises negatively charged first polysaccharide which gels under influence of cations and optionally second polysaccharide which is neutral in composition
AB - NOVELTY :
A composition for coating foodstuffs, comprises:
(1) a first polysaccharide that is negatively charged in the composition and gels under the influence of cations; and

(2) optionally a second polysaccharide which is neutral in the composition.

- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for the following:
(i) Edible coating for foodstuffs, in particular a sausage product, which comprises at least a first polysaccharide that has been jelled under the influence of cations, and a neutral second polysaccharide;
(ii) Method for producing an edible coating, which involves extruding the above coating composition to obtain an extruded coating composition, and bringing the extruded composition into contact with a gelling agent to form a gelled coating; and
(iii) Foodstuff containing coating.
- USE :
For coating foodstuff such as various types sausage, other meat and fish products and products containing vegetables and/or cheese.
- ADVANTAGE :
The coating composition has desired rheological properties which can be formulated without adding proteins. A sufficiently robust and stable coating is formed using the composition and the coloring of the coated foodstuff when boiled and/or fried is prevented. The guar gum is highly suitable for adjusting the viscosity to obtain good jelling properties. The guar gum is soluble when cold, thereby processing of coating composition is improved without any need for heating. The food product with a coating containing alginate and guar gum can be fried without damaging the coating skin. Very low quantity of protein is added to the coating composition for promoting the binding between the coating and foodstuff. The protein added to the coating, provides an attractive appearance and color to the food product. The stability of the coating of foodstuff is increased by bringing the coated foodstuff after jelling into an acid environment. The coating prevents brown discoloration of cut edges of foodstuff and provide longer freshness.
- FOOD :
Preferred Components: The first polysaccharide in the composition are alginate, pectin and/or carrageenan, preferably 1-7 w/w %, preferably 2.3-3.0 w/w % of alginate. The second polysaccharide comprises galactomannans such as guar gum and/or carob gum, preferably 2-10 w/w %, preferably 3-6 w/w % of guar gum. The viscosity of the composition at 20[deg]C is 80-100 Pa.s and the pH is 4.0-9.5, preferably 5. The composition further comprises 0-4 w/w % of protein.
Preferred Method: The coating composition is co-extruded around a foodstuff to be coated. The jelled coating is treated in an acid environment at a pH of 3 or less. The acid environment comprises liquid smoke component or derivative, lactic acid and/or acetic acid. The obtained coating is contacted with a solution containing (in w/w%) acetic acid (0.1-0.5, preferably 0.25), lactic acid (0.1-0.5, preferably 0.25) and liquid smoke or its derivative (0.1-1.0, preferably 0.5).
- EXAMPLE :
(In weight parts) lean pork (10.3) and neck (14.7) were minced. Ice (2.7), nitrite curing salt (0.018), phosphate (0.002), ascorbate (0.001), flavor enhancer (0.001), white pepper (0.003), mace (0.001), coriander (0.0005) and ginger (0.001) were mixed and added to the minced meat. Then 15 weight parts (wt.pts) of a mixture containing (wt.%) egg protein (18), wheat protein (32), milk protein (38) and common salt were blended with 14 wt.pts of oil. Then 55 wt.pts of water was added to the above mixture. Then, 7 wt.pts of mixture containing wheat fiber (25) and tapioca starch (75) was added and blended to obtain a homogeneous mixture. 9 wt.pts of mixture containing textured wheat (52) and vegetable and herbs (50) were mixed at low speed, to obtain vegetarian sausage dough. 250 g of sodium alginate was mixed with 500 g of guar gum. Then 8500 g of water was gradually added to the mixture. The obtained product contained 2.5% of alginate and 5% of guar gum and the apparent viscosity was 100 Pa.s. The product was extruded with the above sausage dough. The obtained

dough was passed for 5 seconds through a 5% calcium chloride solution and segregated into units of 10 cm. The products were pre-dried for 20 minutes at 75[deg]C and pre-heated for 10 minutes in a steam cooker at 85[deg]C. The products were vacuum-packed after cooling. The product formed a good homogeneous coating skin having high mechanical resistance directly after jelling and remained intact after drying and pasteurization. The formed sausage exhibited well closed ends without escaping the fillings. The final products retained its integrity during sterilization, baking, boiling and frying.

ICAI- A22C13/00; A23L1/00; A23L1/05; A23L1/0526; A23L1/0528; A23L1/0532; A23L1/317; A23P1/08; A23P1/12; B65D81/34; B65D85/08
ICCI- A22C13/00; A23L1/00; A23L1/05; A23L1/052; A23L1/317; A23P1/08; A23P1/10; B65D81/34; B65D85/08
PR - NL20001016018 20000825
DS - AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW AL LI LT LV MK RO SI
DN - AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
PAW - (GOOR-I) GOORHUIS J G M
- (RUIT-N) RUITENBERG CZN NV
- (RUIT-N) RUITENBERG CZN NV W
- (RUIT-N) RUITENBERG INGREDIENTS BV
INW - GOORHUIS G; GOORHUIS J; GOORHUIS J G M; MAR G J G
AN - 2002-304092 [34]

22/31 - (C) WPI / Thomson
PN - JP2001161285 A 20010619 DW200151
JP3273507B2 B2 20020408 DW200227
TI - Foodstuff with decorations such as cake and cookies, having edible film printed with edible ink, is coated with transparent/semi-transparent edible coating material
AB - NOVELTY :
The foodstuff (1) has an edible film (12) printed with specific amount of edible ink on foodstuff surface, and a transparent or semi-transparent edible coating material (13) laminated on printed surface of edible film.
- DETAILED DESCRIPTION :
INDEPENDENT CLAIMS are also included for the following:
(a) Foodstuff preparation;
(b) Foodstuff preparing apparatus
- USE :
As decorated foodstuff such as cake, cookies, chocolates, Japanese confectioneries and ice cream-confectioneries.
- ADVANTAGE :
The transparent/semi-transparent coating on the printed surface of foodstuff, provides fresh glossy look, thereby increases commercial value of the foodstuff. Since temperature of cake before forming edible film is reduced to 5-10[deg]C and humidity to 50% or less. Dew formation by extreme cooling can be prevented, thereby eliminating melting of printed character, picture and photograph.
- DESCRIPTION OF DRAWINGS :
The figure shows the perspective diagram of foodstuff.
1 : Decorated cake (foodstuffs)
12 : Edible film
13 : Edible coating material
- FOOD :
Preferred Ingredients: The edible coating material is gel-like pectin.
ICAI- A21D13/00; A23G1/00; A23G1/30; A23G3/00; A23G3/34; A23G3/50; A23L1/00; A23P1/08
ICCI- A21D13/00; A23G1/00; A23G1/30; A23G3/00; A23G3/34; A23L1/00; A23P1/08
PR - JP19990350569 19991209
PAW - (KAWA-I) KAWANO T

INW - KONO T; KONO Y
AN - 2001-468418 [51]

23/31 - (C) WPI / Thomson
PN - CA2279791 A1 20000214 DW200035
US6258383 B1 20010710 DW200141
US2001009681 A1 20010726 DW200146
US2002004073 A1 20020110 DW200208
US6410058 B1 20020625 DW200246
US6475511 B2 20021105 DW200276
US2002187200 A1 20021212 DW200301
US6780438 B2 20040824 DW200457
US2005025837 A1 20050203 DW200511
US2007009609 A1 20070111 DW200706
US2010221359 A1 20100902 DW201058
CA2279791 C 20111108 DW201180
TI - Dietary supplement comprising lactoferrin and colostrum to promote resitance or suppress infection, stimulate immune function or incease in tissue repair and healing
AB - NOVELTY :
Dietary supplement composition for a mammal comprises lactoferrin and colostrum to promote resitance to infection, suppress exisiting infection, stimulate immune function or incease tissue repair and healing.
- ACTIVITY :
Antibiotic; Immunopotentiator; Vulnerary. A woman with irritable bowel syndrome self administered 4-5 lozenges/day each containing 150 mg bovine prime colostrum and 10 mg bovine lactofrrin. After 3 months the condition improved to the point symptoms were absent.
- USE :
As a dietary supplement composition for promoting resitance to infection, suppressing exisiting infection, stimulating immune function or inceasing tissue repair and healing. Inclusion of citrus pectin offers protection from the spread of certain cancers. Composition also allows the body to generate more energy and gives increased stamina for physical activities and optimum health.
- ADVANTAGE :
Supplements can be self-administered orally and combination of lactoferrin and colostrum is synergistic.
- ORGANIC CHEMISTRY :
Preferred Composition: Composition is for administration to a human and comprises (a) 10-100 mg/dose bovine milk lactoferrin, (b) 125-1250 mg per 1500 mg dehydrated bovine prime colostrum, (c) 1.5-15 mg per 1500 mg modified citrus pectin and (d) carrier, diluent or flavoring. Composition is formulated as an oral dosage that promotes absorption of the supplement within the oral cavity (preferably as a lozenge, chewable lozenge, chewable tablet or chewing gum).
- EXAMPLE :
Bovine prime colostrum (150 pts), bovine lactoferrin (10 pts), modified citrus pectin (5 pts), dextrose (1297.5 pts), citric acid (7.5 pts), natural strawberry flavour (7.5 pts), silicon dioxide (7.5 pts) and magnesium stearate (7.5 pts) were mixed and then cold pressed at a maximum pressure of 6.4 tons to give lozenges of 1500 mg and hardness 34-36 Kp.
IC - A61K35/20; A61K35/78; A61K9/20
ICAI- A23C9/20; A23L1/305; A61K35/20; A61K36/752; A61K38/40; A61P3/02; A61P31/00; A61P37/00
ICCI- A61K35/20; A61K38/40; A61P3/00; A61P31/00; A61P37/00
PR - US19980096697P 19980814; US19990370654 19990806; US20010778294 20010206; US20010945997 20010904; US20020209546 20020731; US20040924476 20040824; US20060393296 20060330; US20100722113 20100311
PAW - (COCK-I) COCKRUM R H
- (GOHL-I) GOHLKE M B
- (LACT-N) LACTOFERRIN PROD CO

INW - COCKRUM R H; GOHLKE M B
AN - 2000-400478 [35]

24/31 - (C) WPI / Thomson
PN - WO9809537 A1 19980312 DW199817
AU4324097 A 19980326 DW199832
AU717633B B 20000330 DW200026
NZ334481 A 20000825 DW200049
US2002004089 A1 20020110 DW200208
US6403130 B2 20020611 DW200244
TI - Polymer used in food products and in edible films - comprises acid casein or its non toxic soluble salt and high methoxyl pectin
AB - A polymer comprising acid casein or a non-toxic soluble salt thereof and high methoxyl pectin crosslinked into a 3-dimensional network.
Also claimed are: (i) a food product comprising the above polymer; (ii) an edible film comprising the above polymer; (iii) a food product which includes the edible film; and (iv) preparation of the above polymer.
Preferably the polymer further comprises an edible plasticiser, which is preferably glycerol. The ratio acid casein or non-toxic soluble salt thereof high-methoxyl pectin is 5.1:1 to 6:1. The food product may comprise an edible film either internally or as a coating on all or part of an external surface of the food product.
- USE :
The polymer is used in food products, as edible films. These films will be useful for forming new convenience foods, by inhibiting cross-contamination of liquids and flavours in the same product. The polymer can be sprayed onto the surface of foods, such as coconut, cereal, peanuts or almonds to form an edible film and protect the food from fungal growth. The films can be used to separate internal layers in a food product. They may also be useful as an orthopaedic implant, where the implant is gradually degraded in the body and replaced by bone. The polymer may be extruded into a food product such as noodles.
- ADVANTAGE :
The polymers have good tensile strength, they can act as barriers when cast into films. The polymers are clear and thermoform at 140[deg]C.
ICAI- A23J1/20; A23J3/10; A23L1/00; A23L1/0524; A23L1/0562; A23P1/08; C08H1/00; C08L89/00
ICAN- C08L5/06
ICCI- A23J1/00; A23J3/00; A23L1/00; A23L1/05; A23L1/052; A23P1/08; C08H1/00; C08L89/00
ICCN- C08L5/00
PR - NZ19960299328 19960909
DS - AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
DN - AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
PAW - (BEYE-I) BEYER R
- (KIWI-N) KIWITECH LTD
- (UYOT-N) UNIV OTAGO
INW - BEYER R
AN - 1998-193260 [17]

25/31 - (C) WPI / Thomson
PN - WO9601640 A1 19960125 DW199612
AU2944295 A 19960209 DW199619
NO970039 A 19970217 DW199718
EP0768885 A1 19970423 DW199721
FI965269 A 19970307 DW199723
BR9508245 A 19970930 DW199748
MX9700118 A1 19970601 DW199825
AU695677B B 19980820 DW199845
US5834442 A 19981110 DW199901

JPH11503715 A 19990330 DW199923
US5895784 A 19990420 DW199923
CN1157567 A 19970820 DW200137
NO311493B B1 20011203 DW200203
EP0768885 B1 20040922 DW200462
DE69533550E E 20041028 DW200471
ES2227555T T3 20050401 DW200524
DE69533550T T2 20050922 DW200562
MX227262 B 20050415 DW200571
JP2008111002 A 20080515 DW200836

TI - Treating cancer in mammals by oral admin. of modified pectin - esp. to inhibit metastasis of prostatic cancer

AB - Cancer in mammals is treated by oral admin. of a modified pectin (I). Also new are compsns. contg. (I) and a digestible oral carrier.
- USE :
The method is specifically used to treat human prostate cancer, partic. to inhibit metastasis, but may also be used against many other types of cancer (e.g. Kaposi sarcoma; chronic dleukaemia; cancer of the breast, rectum, throat or colon; melanomo, lung cancer etc..
- ADVANTAGE :
(I) is non-toxic and probably inhibits tumour cell spread by interacting with tumour cell surface carbohydrate-binding proteins, preventing their adhesion to epithelial cells.

IC - A61K31/725; A61K31/732; A61P35/04; C08B37/00
ICAI- A61K31/715; A61K31/732; A61P35/00; A61P35/04; C08B37/00; C08B37/06
ICCI- A61K31/715; A61K31/732; A61P35/00; C08B37/00
PR - US19940271821 19940707; WO1995US07547 19950614; US19970735432 19970102
DS - AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG LI
DN - AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA US UZ VN
PAW - (UYWY) UNIV WAYNE STATE
- (KARM-N) KARMANOS CANCER INST BARBARA ANN
- (KARM-N) KARMANOS INST BARBARA ANN
- (MICH-N) MICHIGAN CANCER FOUND
INW - PIENTA K; PIENTA K J; RAZ A
AN - 1996-116690 [12]

26/31 - (C) WPI / Thomson
PN - WO9425493 A1 19941110 DW199444
AU6711094 A 19941121 DW199508
US5451673 A 19950919 DW199543
EP0699211 A1 19960306 DW199614
EP0699211 A4 19960508 DW199643
NZ265837 A 19970922 DW199745
AU685805B B 19980129 DW199812

TI - Biodegradable films made from pectin and starch mixts. - the high modulus, flexible films, opt. contg. plasticiser, can replace films made from petroleum-based raw materials

AB - A film comprises a blend of effective amts. of pectin and starch. Also claimed are: (1) a method of making a film comprising: (a) blending an effective amt. of pectin with an effective amt. of gelatinised starch; (b) casting the blend on a plate such that a film is formed; (c) allowing the film to dry; and (d) removing the film from the plate; (2) a film comprising a blend of effective amts. of pectin and a plasticiser.
- ADVANTAGE :
The films are biodegradable, recyclable and acceptable for human consumption and pharmaceutical applications. They have multiple uses, ease of disposal, and replace petroleum-based raw materials with renewable agricultural prods.. The films are high modulus, flexible and self-supporting.

ICAI- C08J5/18; C08L29/04; C08L5/06
ICAN- C08L3/02

ICCI- C08J5/18; C08L29/00; C08L5/00
ICCN- C08L3/00
PR - US19930051415 19930423
DS - AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE LI
DN - AU CA JP NZ
PAW - (USDA) US SEC OF AGRIC
INW - COFFIN D R; FISHMAN M L
AN - 1994-358196 [44]

27/31 - (C) WPI / Thomson
PN - WO9201394 A 19920206 DW199208
AU8221891 A 19920218 DW199222
GB2262245 A 19930616 DW199324
BR9106666 A 19930608 DW199327
EP0550445 A1 19930714 DW199328
JPH05508544 A 19931202 DW199402
AU644463B B 19931209 DW199405
GB2262245 B 19940330 DW199410
EP0550445 B1 19950628 DW199530
DE69110894E E 19950803 DW199536
JP3091487B2 B2 20000925 DW200051
TI - Moisture barrier film - comprises edible protein and edible polysaccharide and has coating of edible hydrophobic material on (portion) of surface
AB - The film comprises an edible protein and an edible polysaccharide and has a coating of an edible hydrophobic material on at least a portion of its surface. Also claimed is a food prod. contg. the film.
The edible protein is pref. a fibrous protein or a modified fibrous protein esp. collagen. The polysaccharide is selected from charged polysaccharides, gums and modified celluloses, the polysaccharide is esp. hydroxypropylmethyl cellulose. The hydrophobic material is an edible oil or wax esp.
an esterified glyceride, more esp. acetylated monoglyceride.
- USE/ADVANTAGE :
The moisture barrier film is of partic. utility in the mfr. of food prods. The film is rendered at least partly moisture impermeable by the hydrophobic material. The protein component helps to maintain the integrity of film during cooking and moisture-barrier properties are retained even after cooking. The films are extrudable and have better handling properties compared to prior art films. The films are undetectable visibly or organoleptically.
IC - A23L3/00; A23P1/08
ICAI- A21D13/00; A21D13/08; A23J3/00; A23L1/00; A23L3/00; A23P1/08; B32B9/00; C08J5/18; C08J7/04
ICCI- A21D13/00; A23J3/00; A23L1/00; A23L3/00; A23P1/08; B32B9/00; C08J5/18; C08J7/00
PR - GB19900016340 19900725
DS - AT BE CH DE DK ES FR GB GR IT LU NL OA SE
DN - AT AU BB BG BR CA CH CS DE DK ES FI GB HU JP KP KR LK LU MC MG MW NL NO PL RO SD
PAW - (JOHJ) DEVRO LTD
INW - HARVEY W; TANNER A; TANNER A G
AN - 1992-064649 [08]

28/31 - (C) WPI / Thomson
PN - JP3076531 A 19910402 DW199119
TI - Coated fruit food item prepn. - by peeling grapefruit or oranges, etc., mechanically and immersing in aq. liq. contg. gelatin, sodium alginate or pectin
AB - Grapefruits or oranges etc. are peeled mechanically and are immersed in aq. liq. contg. gelatin, sodium alginate or pectin to coat the surfaces of such fruits.
- ADVANTAGE :
Skins of fruits insufficient for eating are removed and gelatinous

film can coat such surfaces for maintaining stability. @(4pp Dwg.No.O/O)
ICAI- A23B7/16
ICCI- A23B7/00
PR - JP19890210704 19890817
PAW - (KIBN) KIBUN FOOD CHEMIPHAR KK
- (KIBN) KIBUN KK
INW - IRIE S; MURATA K
AN - 1991-137918 [19]

29/31 - (C) WPI / Thomson
PN - EP0328317 A 19890816 DW198933
JP1289457 A 19891121 DW199001
CN1036967 A 19891108 DW199033
TI - Edible film of curdlan and macromolecular substance - used as water soluble heat sealable opt. flavoured transparent food films and casings
AB - New edible films comprise a curdlan and a water-soluble macromolecular substance. Curdlans are thermo-gellable beta-13-glucan type polysaccharides. Pref the macromolecular substance is pectin, arabinogalactan, pullulan, xanthan gum, carrageenan, agar furcellaran, alginate, gum arabic, gum tragacanth, gum karaya, gum ghatti, carboxymethyl or phosphorylated-starch, dextrin, locust bean, guar, tarar or tamarind gum, konjak, gelatin, casein, gluten, soybean protein, Na polyglutamate, Na carboxyl or methyl-cellulose and/or polyacrylate, esp. at 0.1-20 wt.% w.r.t. curdlan. The film contains Na glutamate, Na 5'-guanylate, Na 5'-inosinate, protein hydrolysate, wine, brandy, sake, sugar, fractose, thick malt syrup, lactitol, mallitol, sorbitol, aspastame, saccharin, citric-, malic-, tartaric-fumaric or ascorbic-acid, colour additive, spice, fat oil, glycerin or sucrose-fatty acid ester, coffee, cocoa, tea, powdered tea, milk femented milk, fruit, juice, cereal, fish, roe, meat or vegetable. The film has a moisture content of 10-20%, and thickness of 10-200 microns. The films are produced by extruding a thin film of aq. mixt. contg. the curdlan and macromolecular substance, heating, drying and winding up. The ratio macromolecular substance = curdlan is 0.1-20:1 by wt. and their sum is 1-40 wt.% of the aq. mixt. The heating is by IR, for IR, microwave or steam.
- USE/ADVANTAGE :
Films have heat sealability and water-solubility. They can be used as edible casings for foodstuffs or, if foodstuff is incorporated into the films, as tasting films.
ICAI- A23L1/00; A23L1/054; A23L1/22; C08B37/00; C08L1/00; C08L101/00; C08L3/00; C08L5/00
ICCI- A23L1/00; A23L1/05; A23L1/22; C08B37/00; C08L1/00; C08L101/00; C08L3/00; C08L5/00
PR - JP19890026261 19890203; JP19880025460 19880204
DS - AT BE CH DE ES FR GB GR IT LI LU NL SE
PAW - (TAKE) TAKEDA CHEM IND LTD
INW - IIDA A; KONNO A; LIDA A
AN - 1989-235641 [33]

30/31 - (C) WPI / Thomson
PN - JP62195247 A 19870828 DW198740
JP2059701B B 19901213 DW199103
TI - Obtaining confectionery from plums - which are coated with primer film, and then with chocolate, etc.
AB - Fresh plums, or plums preserved in sugar, are coated with primer film such as sodium alginate, agar, or pectin, and are coated again with chocolate, etc.
- USE :
Plums are used as core material of sweet confectionaries.
ICAI- A23B7/08; A23B7/12; A23B7/16; A23G3/00; A23G3/34; A23L1/212
ICCI- A23B7/00; A23B7/08; A23B7/10; A23G3/00; A23G3/34; A23L1/212
PR - JP19860038087 19860221

PAW - (YAMA-N) YAMANI KK
INW - TAKEDA J
AN - 1987-280907 [40]

31/31 - (C) WPI / Thomson
PN - EP0096302 A 19831221 DW198351
ZA8303758 A 19840116 DW198413
US4448794 A 19840515 DW198422
ES8404603 A 19840801 DW198439
CA1190083 A 19850709 DW198532
EP0096302 B 19861105 DW198645
DE3367317G G 19861211 DW198651
TI - Preventing colour migration from artificially dyed cherries - by coating with low methoxy pectin pptd. with calcium ions
AB - Pectin coatings are applied to artificially coloured cherries by contact with an aq. soln. of an edible Ca salt, then with a warm soln. of low methoxy pectin, and finally with another soln. of edible Ca salt.
The cherries are pref. halved before treatment, and immersed in sugar soln. to raise the internal osmotic pressure to prevent distortion during the process. The concn. of Ca salt 2.5-30, esp. 7.5-20%, based on wt. of water. Suitable salts are the lactate, gluconate, citrate or esp. the chloride. Contact time with the Ca soln. is 0.5-15, esp. 0.75-5 mins.
The coating prevents migration of colour from the cherries to other fruits or syrup in contact with them, without changing their shape or structure, and is strong, insol. and almost invisible.
ICAI- A23B7/16; A23L1/00; A23L1/275
ICCI- A23B7/00; A23L1/00; A23L1/27
PR - US19820386443 19820609
DS - DE FR GB IT
PAW - (NEST) SOC PROD NESTLE SA
INW - BERBERAT A; WISGOTT U; WISSGOTT U
AN - 1983-846109 [51]

C) Base de Datos INVENES

1/3. PELÍCULAS FUNCIONALIZADAS.

Número de Publicación: ES2353156 T3 (25.02.2011)

También publicado como: EP1879949 A1 (23.01.2008)
EP1879949 B1 (15.09.2010)
WO2006124484 A1 (23.11.2006)

Número de Solicitud: PCT/US2006/018174 (10.05.2006)
E06759532 (10.05.2006)

Número de Prioridad: US20050681078P (13.05.2005)

Solicitante: THE PROCTER AND GAMBLE COMPANY (US)
ONE PROCTER & GAMBLE PLAZA CINCINNATI, OHIO 45202 ESTADOS UNIDOS DE AMERICA

Inventor/es: DENOME, FRANK, WILLIAM (US);
BECKHOLT, DENNIS, ALLEN;
ARCHBOLD, JAMES, MICHAEL;
AOUAD, YOUSEF, GEORGES (US);
CATALFAMO, VINCENZO;

CIP: ***C08J7/04*** *(2006.01)* ***C08L29/04*** *(2006.01)* ***C11D17/04*** *(2006.01)*

CPC: **A23F5/36** **A23L1/2205** **C11D3/386**
C11D3/39 **C11D3/3945** **C11D17/0039**
C11D17/042

Resumen: Un proceso para preparar un sustrato funcionalizado en forma de una película soluble en agua que contiene un recubrimiento de una composición funcional, comprendiendo el proceso aplicar a al menos una cara de la película una solución acuosa que comprende uno o más materiales funcionales en donde un material funcional es blanqueador para formar el recubrimiento en el que el recubrimiento se forma a partir de una pluralidad de capas de una forma secuencial y/o a partir de la solución acuosa que comprende un agente insolubilizante de película en el que el agente insolubilizante de película es una sal.

2/3. PELICULAS COMESTIBLES.

Número de Publicación: ES2109303 T3 (16.01.1998)

También publicado como: EP0547551 A1 (23.06.1993)
EP0547551 B1 (05.11.1997)

Número de Solicitud: E92121272 (14.12.1992)

Número de Prioridad: US19910808393 (16.12.1991)
US19920980933 (20.11.1992)

Solicitante: NATIONAL STARCH AND CHEMICAL INVESTMENT HOLDING CORPORATION (US)
501 SILVERSIDE ROAD,WILMINGTON, DELAWARE 19809

Inventor/es: LAZARD, LAURENT (FR);
DOREAU, ALBERT (FR);
NADISON, JEFFREY (FR);

CIP: ***A21D13/00*** *(2006.01)* ***A21D15/08*** *(2006.01)* ***A23G3/34*** *(2006.01)*
A23L1/00 *(2006.01)* ***C08L3/00*** *(2006.01)*

CPC: **A21D13/0012** **A21D15/08** **A23G3/343**
A23L1/005 **A23L1/0052** **A23L1/0055**
A23L1/0067 **C08L3/00**
A23G2200/06 A23G2200/08

Resumen: COMPOSICIONES UTILES COMO PELICULAS COMESTIBLES QUE CONTIENEN, EN PESO, DE UN 5 A UN 40% DE ALMIDON MODIFICADO, DE UN 5 A UN 40% DE GELATINA, DE UN 10 A UN 40% DE PLASTIFICANTE, DE UN 5 A UN 40% DE AGUA Y, OPCIONALMENTE, DE UN 5 A UN 40% DE LIPIDOS, EN DONDE LAS COMPOSICIONES TIENEN UNA VISCOSIDAD INFERIOR A 370.000 CPS APROXIMADAMENTE A 80 (GRADOS) C Y LAS PELICULAS COMESTIBLES SON EFECTIVAS PARA PROPORCIONAR BARRERAS PARA EL AGUA, LOS LIPIDOS, LOS SOLUTOS, EL GAS, FISICAS Y MICROBIANAS PARA LOS ALIMENTOS. UN SEGUNDO GRUPO DE COMPOSICIONES, UTILES COMO PELICULAS BARRERA A LA HUMEDAD CONTIENEN, EN PESO, DE UN 8 A UN 35% DE ALMIDON MODIFICADO, DE UN 10 A UN 20% DE GELATINA, DE UN 15 A UN 30% DE LIPIDOS, DE UN 20 A UN 60% DE AGUA Y, OPCIONALMENTE, DE UN 0 A UN 15% DE PLASTIFICANTE, EN DONDE LAS COMPOSICIONES TIENEN UNA VISCOSIDAD MENOR DE 35.000 CPS A 80 (GRADOS) C Y LAS PELICULAS COMESTIBLES SON EFECTIVAS PARA PROPORCIONAR UNA BARRERA A LA TRANSMISION DEL AGUA EN LOS ALIMENTOS. LAS

COMPOSICIONES CONTIENEN OPCIONALMENTE, MEZCLAS DE PLASTIFICANTE(S), LIPIDO(S), ALMIDON(ES) O GELATINA(S) Y OPCIONALMENTE CONTIENEN CONSERVANTE(S), EMULSOR(ES), ESTABILIZADOR(ES) DE EMULSIONES, AROMA(S), COLORANTE(S), TAMPON(ES), ACIDULANTE(S), BASE(S) U OPACIFICADOR(ES). SE PREFIEREN LAS DESTRINAS Y LOS ALMIDONES DE FLUIDEZ.

3/3. PROCESO PARA HACER PELICULAS DE GELATINA.

Número de Publicación: ES2040107 T3 (01.10.1993)

También publicado como: EP0449908 A1 (09.10.1991)
EP0449908 B1 (14.04.1993)
WO9007281 A1 (12.07.1990)

Número de Solicitud: PCT/EP1989/001574 (20.12.1989)
E90900812 (20.12.1989)

Número de Prioridad: DE19883843844 (24.12.1988)

Solicitante: DEUTSCHE GELATINE-FABRIKEN STOESS AG (DE)
POSTFACH 100 GAMMELSBACHER STRASSE 2,W-6930 EBERBACH

Inventor/es: KOEPFF, PETER (DE);
BRAUMER, KLAUS;
STAHL, HELMUTH (DE);
DICK, EBERHARD (DE);

CIP: ***A23J3/00*** *(2006.01)* ***A23J3/06*** *(2006.01)* ***C09H9/02*** *(2006.01)*

CPC: **C09H9/02**

Resumen: UN PROCESO PARA HACER PELICULAS DE GELATINA, EN PARTICULAR LAMINAS DE GELATINA, DESDE GELATINA EN POLVO QUE COMPRENDE LOS DIGUIENTES PESOS: LA GELATINA EN POLVO ES ABLANDADA MEDIANTE LA ADICION DE AGUA Y LA APLICACION DE FUERZAS CORTANTES A ALTA PRESION Y ALTA TEMPERATURA. UNA PELICULA DEL MATERIAL PLASTICO ABLANDADO ES ESPRIMIDA A TRAVES DE UN TROQUEL EN FORMA DE RANURA DESDE EL CUAL ES HUNDIDO BAJO UNA TENSION. ENTONCES SE SECA LA PELICULA TENSA.

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ANEXO 2. Bases de datos utilizadas en la búsqueda

BIOSIS
Productor: *Biosis, U.S.A.*
Contenido: *Información bibliográfica mundial sobre todas las áreas de las ciencias biológicas y biomédicas desde 1969.*
Actualización: *Semanal*
Número de documentos: *más de 14.000.000 de registros*

EMBASE *(Literatura no patente en el campo de las ciencias biomédicas y la farmacología)*
Productor: *Elsevier Science B.V.*
Contenido: *4000 revistas científicas de 70 países en el campo de las ciencias biomédicas y la farmacología*
Actualización: *Semanal*
Número de documentos: *más de 9.000.000 de registros*

EPODOC
Productor: *Oficina Europea de Patentes (O.E.P.)*
Contenido: *Documentos de patente que forman parte de la documentación sistemática de búsqueda de la O.E.P.*
Actualización: *Semanal*
Número de documentos: *aproximadamente 58.000.000*

INVENES
Productor: *Oficina Española de Patentes y Marcas*
Contenido: *Patentes y Modelos de Utilidad españoles desde 1968 hasta la fecha y solicitudes de patentes europeas y PCT que designan España que generan un documento en español.*
Actualización: *Quincenal*
Número de documentos: *aproximadamente 670.000 referencias bibliográficas y 630.000 documentos completos*

MEDLINE *(MEDical Literature Analysis and Retrieval System OnLINE)*
Productor: *U.S. National Library of medicine (NLM)*
Contenido: *Información bibliográfica mundial sobre todas las áreas de las ciencias biomédicas desde 1966.*
Actualización: *Semanal*
Número de documentos: *más de 11.000.000 de registros*

NPL *((Non Patent Literature))*
Productor: *Oficina Europea de Patentes (O.E.P.)*
Contenido: *Datos bibliográficos de documentos de literatura no patente que forman parte de la documentación de búsqueda de la O.E.P.*
Actualización: *Semanal*
Número de documentos: *aproximadamente 1.900.000*

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WPI *(World Patents Index)*
Productor: *Thomson*
Contenido: *Datos bibliográficos de solicitudes publicadas y patentes concedidas por 40 oficinas de patentes desde 1963 hasta la fecha, además de patentes europeas y PCT, desde 1981.*
Actualización: *Semanal (20.000 documentos/semana)*
Número de documentos: *aproximadamente 15.000.000*

XPESP
Productor: *Elsevier Science Publications*
Contenido: *Literatura no patente desde 1.994 sobre un amplio rango de sectores técnicos relacionados con la Física, Electricidad, Mecánica y Química.*
Actualización: *Quincenal*
Número de documentos: *más de 519.894 documentos*

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ANEXO 3. Códigos de las bases de datos

BIOSIS

AB : Resumen
AN : Número de acceso
AU : Autor
AUAF : Centro de investigación
CONF : Conferencia
ED : Editor
IN : Inventor
IRN : Número de registro Internacional
NR : Número de edición
PA : Solicitante
PG : Páginas
PN : Número de patente
PUB : Datos de Publicación
TI : Título
VOL : Volumen

MEDLINE

AB : Resumen
AN : Número de acceso
AU : Autor
AW : Nombre de sustancia
DT : Tipo de documento
IRN : Número de registro internacional
IW : Términos indexados
LA : Idioma
NR : Número de edición
PG : Números de páginas
PUB : Datos de publicación
TI : Título
VOL : Volumen

EPODOC

AB : Resumen
AP : Datos de solicitud
CT : Documentos citados en el informe de búsqueda
CTNP : Literatura no patente citada en el informe de búsqueda
EC : Clasificación europea de Patentes
IC : Clasificación Internacional de Patentes
ICO : Códigos de indexación
PAW : Solicitante
PN : Número y fecha de publicación
PR : Número y fecha de prioridad
TI : Título

WPI

AB : Resumen
AN : Número de acceso Derwent
CT : Patentes citadas en el Informe de Búsqueda
DN : Estados designados (vía nacional)
DS : Estados designados (vía regional)
IC : Clasificación Internacional de Patentes
INW : Inventor
PAW : Solicitante
PN : Números y fechas de publicación
PR : Números y fechas de prioridad
TI : Título

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ANEXO 4. Abreviaturas de países

AE	:	Emiratos Árabes Unidos
AG	:	Antigua y Barbuda
AL	:	Albania
AM	:	Armenia
AP	:	Patentes ARIPO
AR	:	Argentina
AT	:	Austria
AU	:	Australia
AZ	:	Azerbayán
BA	:	Bosnia y Herzegovina
BB	:	Barbados
BE	:	Bélgica
BF	:	Burkina Faso
BG	:	Bulgaria
BJ	:	Benin
BO	:	Bolivia
BR	:	Brasil
BW	:	Botswana
BY	:	Bielorrusia
BZ	:	Belice
CA	:	Canadá
CF	:	Rep. Centroafricana
CG	:	Congo
CH	:	Suiza
CI	:	Costa de Marfil
CL	:	Chile
CM	:	Camerún
CN	:	China
CO	:	Colombia
CR	:	Costa Rica
CS	:	Checoslovaquia
CU	:	Cuba
CY	:	Chipre
CZ	:	Rep. Checa
DD	:	Rep. Dem. Alemana
DE	:	Alemania
DK	:	Dinamarca
DM	:	Dominica
DZ	:	Argelia
EA	:	Patente Euroasiática
EC	:	Ecuador
EE	:	Estonia
EG	:	Egipto
EP	:	Patente Europea
ES	:	España
FI	:	Finlandia
FR	:	Francia
GA	:	Gabón
GB	:	Reino Unido
GD	:	Granada
GE	:	Georgia
GH	:	Ghana
GM	:	Gambia
GN	:	Guinea
GQ	:	Guinea Ecuatorial
GR	:	Grecia
GW	:	Guinea-Bissau
HR	:	Croacia
HU	:	Hungría
ID	:	Indonesia
IE	:	Irlanda
IL	:	Israel
IN	:	India
IS	:	Islandia
IT	:	Italia
JP	:	Japón
KE	:	Kenia
KG	:	Kirguizistán
KP	:	Rep. Pop. Dem. Corea
KR	:	Rep. Corea
KZ	:	Kazajstán
LC	:	Santa Lucía
LI	:	Liechtenstein
LK	:	Sri Lanka
LR	:	Liberia
LS	:	Lesoto
LT	:	Lituania
LU	:	Luxemburgo
LV	:	Letonia
MA	:	Marruecos
MC	:	Mónaco
MD	:	Rep. Moldavia
MG	:	Madagascar
MK	:	Rep. Macedonia
ML	:	Mali
MN	:	Mongolia
MR	:	Mauritania
MW	:	Malaui
MX	:	México
MZ	:	Mozambique
NA	:	Namibia
NE	:	Níger
NI	:	Nicaragua
NL	:	Países Bajos
NO	:	Noruega
NZ	:	Nueva Zelanda
OA	:	Patente OAPI
OM	:	Oman
PG	:	Papua Nueva Guinea
PH	:	Filipinas
PL	:	Polonia
PT	:	Portugal
RO	:	Rumania
RU	:	Federación Rusa
SC	:	Seychelles
SD	:	Sudán
SE	:	Suecia
SG	:	Singapur
SI	:	Eslovenia
SK	:	Eslovaquia
SL	:	Sierra Leona
SN	:	Senegal
SU	:	Unión Soviética
SY	:	Rep. Árabe Siria
SZ	:	Suazilandia
TD	:	Chad
TG	:	Togo
TJ	:	Tayikistán
TM	:	Turkmenistán
TN	:	Túnez
TR	:	Turquía
TT	:	Trinidad y Tobago
TW	:	Taiwán
TZ	:	Rep. Unida de Tanzania
UA	:	Ucrania
UG	:	Uganda
US	:	Estados Unidos
UZ	:	Uzbekistán
VC	:	San Vicente y las Granadinas
VE	:	Venezuela
VN	:	Vietnam
WO	:	Patente PCT
YU	:	Yugoslavia / Serbia y Montenegro
ZA	:	Sudáfrica
ZM	:	Zambia
ZR	:	Zaire
ZW	:	Zimbabue

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ANEXO 5. Glosario de términos de propiedad industrial

ACTIVIDAD INVENTIVA:

Requisito de patentabilidad, junto con la novedad y la aplicación industrial. Significa que la invención ha de ser no sólo nueva, sino también no obvia, en el sentido de que, teniendo en cuenta el estado de la técnica, no resulte evidente para un experto en la materia (especialista en el campo técnico correspondiente).

APLICACIÓN INDUSTRIAL:

Requisito de patentabilidad, junto con la novedad y la actividad inventiva. Se entiende que una invención es susceptible de aplicación industrial cuando su objeto puede ser fabricada o utilizado en cualquier clase de industria, incluida la agrícola.

CLASIFICACIÓN INTERNACIONAL DE PATENTES (CIP):

Sistema de clasificación jerárquica utilizado para la clasificación y búsqueda de los documentos de patente (solicitudes de patentes, patentes concedidas, modelos de utilidad, etc.).También se utiliza como instrumento para ordenar los documentos de patente, como base para la difusión selectiva de información y para el estudio del estado de la técnica en un campo dado de la tecnología. El esquema de la clasificación contiene 70,000 entradas. La oficina Europea de patentes dispone de su propio esquema de clasificación basado en la CIP, denominado Clasificación Europea de Patentes (ECLA).

DERECHO DE PRIORIDAD:

Este es un derecho basado en el Convenio de la Unión de París (CUP), para la protección de la propiedad industrial (París, 20/3/1883), que afecta a los Estados que forman parte de este Convenio (en la actualidad casi un centenar, entre los que figura España)(Instrumento de ratificación de España de 13/12/71 al Acta de Estocolmo de 14/7/67, modificativa del CUP; BOE nº 28, 1/2/74). Este derecho significa que, en base a la fecha de una primera solicitud regular depositada en uno de los Estados contratantes, el solicitante dispone de un periodo de doce meses para solicitar protección en otros Estados contratante mediante solicitudes posteriores en las que se invocará la prioridad de la primera solicitud. El efecto que produce es que todas las solicitudes posteriores se consideran como depositadas en la fecha de la primera, es decir, tendrán "prioridad" sobre las solicitudes presentadas por otras personas para la misma invención en el periodo intermedio entre la fecha del primer depósito y las fecha posteriores de presentación en las distintas oficinas nacionales. La fecha del primer depósito es por lo tanto la que se tendrá en cuenta para delimitar el Estado de la Técnica anterior cuando se realice el examen sustantivo de la solicitud. La ventaja principal es que permite disponer al solicitante de un plazo de doce meses para decidir en qué países desea solicitar protección, sin necesidad de presentar todas las solicitudes al mismo tiempo.

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ESTADO DE LA TÉCNICA: *(state of the art, prior art).*

Se refiere al nivel de desarrollo alcanzado por un área particular de una materia técnica en una fecha dada. Está constituida por todo lo que antes de esta fecha se ha hecho accesible al público en cualquier parte del mundo y por cualquier medio (descripción escrita, oral, uso, etc.). Para una invención dada, el estado de la técnica es decisivo para la determinación del cumplimiento de los requisitos de patentabilidad en cuanto a novedad y actividad inventiva. La fecha que delimita este estado es la de presentación de la solicitud, que será la de prioridad en los casos correspondientes.

FAMILIA DE PATENTES:

En general, se denomina familia de patentes a los documentos de patente publicados en diferentes países pero relacionados con la misma invención. Para los países miembros del Convenio de la Unión de París (ver derecho de prioridad), estos documentos pueden ser identificados normalmente a través de los datos de la primera solicitud en base a la cual se invoca el derecho de prioridad en las solicitudes posteriores. Esta primera solicitud suele denominarse patente prioritaria. Cada "miembro" de la familia describe la misma invención pero a menudo en diferentes idiomas.

INFORME SOBRE EL ESTADO DE LA TÉCNICA: *(search report).*

Es un informe que contiene los resultados de la búsqueda en el estado de la técnica, citando los documentos que se consideran relevantes para determinar, en particular, la novedad o actividad inventiva de una invención determinada, de acuerdo a lo que se reivindica en la solicitud objeto de informe. Son realizados por las Oficinas de Propiedad Industrial de acuerdo a la legislación propia de cada país u organización regional.

MODELO DE UTILIDAD:

Según la Ley de Patentes española (Ley 11, 20/3/86; BOE nº 73, 26/3/86), son protegibles en España como modelos de utilidad las invenciones que, siendo nuevas e implicando una actividad inventiva, consisten en dar a un objeto una configuración, estructura o constitución de la que resulte alguna ventaja prácticamente apreciable para un uso o fabricación. En particular pueden protegerse como modelos de utilidad los utensilios, instrumentos, herramientas, aparatos, dispositivos o partes de los mismo, que reúnan los requisitos enunciados anteriormente. El estado de la técnica con referencia al cual debe juzgarse la novedad y la actividad inventiva de las invenciones protegibles como modelos de utilidad, está constituido por todo aquello que antes de la fecha de presentación de la solicitud de protección como modelo ha sido divulgado en España, por una descripción escrita u oral, por una utilización o por cualquier otro medio. Para su protección como modelo de utilidad se considera que una invención implica una actividad inventiva si no resulta del estado de la técnica de una manera muy evidente para un experto en la materia.

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NOVEDAD:

Requisito de patentabilidad, junto con la actividad inventiva y la aplicación industrial. Se considera que una invención es nueva cuando no está comprendida en el estado de la técnica (ver estado de la técnica, actividad inventiva y aplicación industrial).

PATENTE:

Según la Ley de Patentes española (Ley 11, 20/3/86; BOE nº 73, 26/3/86), son protegibles en España como patentes las invenciones nuevas que impliquen una actividad inventiva y sean susceptibles de aplicación industrial.

No se considerarán invenciones, en el sentido del apartado anterior, en particular:

a) Los descubrimientos, las teorías científicas y los métodos matemáticos.

b) Las obras literarias o artísticas o cualquier otra creación estéticas, así como las obras científicas.

c) Los planes, reglas y métodos para el ejercicio de actividades intelectuales, para juegos o para actividades económico-comerciales, así como los programas de ordenador.

d) Las formas de presentar informaciones.

No se considerarán como invenciones susceptibles de aplicación industrial los métodos de tratamiento quirúrgico o terapéutico del cuerpo humano o animal, ni los métodos de diagnóstico aplicados al cuerpo humano o animal. Esta disposición no será aplicable a los productos, especialmente a las sustancias o composiciones ni a las invenciones de aparatos o instrumentos para la puesta en práctica de tales métodos.

Se considera que una invención es nueva cuando no está comprendida en el estado de la técnica, que está constituido por todo lo que antes de la fecha de presentación de la solicitud de patente se ha hecho accesible al público en España o en el extranjero por una descripción escrita u oral, por una utilización o por cualquier otro medio.

Se considera que una invención implica una actividad inventiva si aquella no resulta del estado de la técnica de una manera evidente para un experto en la materia.

PATENTE EUROPEA:

Patente tramitada por la Oficina Europea de Patentes en virtud del CPE [Convenio de Patentes Europeas, Munich, 5/10/73; (Instrumento de Adhesión de España de 10/7/86; BOE nº 234, 30/9/86)] y que permite al inventor, mediante una única solicitud de patente depositada en dicha Oficina, obtener protección en todos y cada uno de los países miembros del Convenio que hayan sido designados por él. Una vez concedida, la patente europea se divide en un haz de patentes nacionales,

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sometidas a la legislación del país respectivo. En la actualidad son miembros de CPE los siguientes 31 países: Alemania, Austria, Bélgica, Bulgaria, Chipre, Dinamarca, Eslovaquia, Eslovenia, Estonia, España, Estonia, Finlandia, Francia, Grecia, Hungría, Irlanda, Italia, Latvia, Liechtenstein, Lituania, Luxemburgo, Mónaco, Países Bajos, Polonia, Portugal, Reino Unido, Rumania, República Checa, Suecia, Suiza y Turquía.

PATENTE PCT:

*Patente tramitada en virtud del Tratado de Cooperación en Materia de Patentes (**P**atent **C**ooperation **T**reaty, Washington, 19/6/70)(Instrumento de Adhesión de España de 13/7/89; BOE nº 267, 7/11/89), que permite al inventor, mediante una única solicitud de patente, solicitar protección en todos los países designados por él, de los adheridos al Tratado. España se adhirió inicialmente al Capítulo I, en el que se señala que se realizará un informe de búsqueda por una de las Oficinas establecidas por el tratado como Autoridad Internacional de Búsqueda, informe que posteriormente es enviado a las correspondientes oficinas nacionales de los países designados donde se estudia si se concede o deniega la patente de acuerdo con cada una de las legislaciones nacionales. El 6 de junio de 1997, España levantó la reserva al Capítulo II del Tratado, por lo que a partir del 6 de septiembre de 1997 (BOE nº 36, 11/2/98) los españoles o residente en nuestro país pueden presentar solicitudes de examen preliminar internacional para sus solicitudes PCT. En la actualidad forman parte del Tratado 132 países (ver Anexo 4).*

VÍA EURO-PCT:

Se refiere a la vía que siguen las solicitudes de patente PCT que designan los países europeos firmante del Convenio de la Patente Europea (CPE) a través de una patente europea. Así, la primera parte del procedimiento, hasta la publicación de la solicitud y del informe de búsqueda (search report). se realiza como una solicitud PCT. A partir de ahí, y a petición del solicitante, se entra en la vía de la patente europea, publicándose de nuevo la solicitud en el caso en que la solicitud original no esté redactada en alguno de los tres idiomas oficiales del CPE (inglés, francés o alemán). En caso contrario, la solicitud no se publica de nuevo, pero se le otorga una fecha de publicación de la solicitud europea y se continúa la tramitación por parte de la Oficina Europea de Patentes hasta su concesión o denegación, siendo el procedimiento idéntico al de cualquier otra solicitud europea.

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