ITP

Informe Tecnológico de Patentes

N/Ref.: 100000/P0000

Título

RECUBRIMIENTO COMESTIBLE A BASE DE PECTINA CON EFECTOS ANTICANCERÍGENOS

Realizado para

SOLICITANTE XXX

Fecha:

15/08/2021

Elaborado por:

XXXXXXXXXXXX

Técnico superior examinador de patentes

MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO

Oficina Española de Patentes y Marcas

Unidad de Información Tecnológica

OEPM

Sumario

(Volver al Sumario)

Objeto del informe

Finalidad

Este informe se ha realizado para identificar la posible patentabilidad del desarrollo técnico descrito por el cliente.

Documentación de partida

El cliente ha aportado como base para el análisis una memoria técnica en la que se realiza una descripción general de la cuestión de interés sin detallar las características concretas de la composición.

En adelante nos referiremos a esta documentación como "documentación de partida" .

De acuerdo con la documentación de partida, el objeto técnico propuesto se refiere a composiciones con efecto anticancerígeno que contienen pectina para el recubrimiento comestible de productos alimenticios.

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Estrategia de búsqueda

Características técnicas en las que se ha centrado la búsqueda

La búsqueda se ha centrado en la localización de documentos que incluyan el siguiente conjunto de características técnicas:

- composiciones con efecto anticancerígeno que contienen pectina para el recubrimiento comestible de productos alimenticios.

Bases de Datos utilizadas

En función del campo o campos técnicos correspondientes al desarrollo propuesto por el cliente, se ha realizado la búsqueda en las siguientes bases de datos:

Bases de datos de patentes

WPI, EPODOC, INVENES,

Bases de datos de literatura no patente

BIOSIS, MEDLINE, EMBASE, NPL, XPESP

Clasificaciones y palabras clave empleadas en la búsqueda

Para consultar las mencionadas bases de datos, se han empleado los siguientes criterios de búsqueda:

Códigos de la CIP

A23P 1/08

A23B 7/16

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Códigos de la CPC

A23P20/10

Palabras clave

En español

FILTRO, CONICO, ESPIRAL, EMBOLICA, NITINOL, NYLON, CAPTURA,

Otros idiomas

EMBOLIC PROTECTION DEVICE (EPD), FILT+, CAPTUR+, SPIRAL, COIL, NYLON, NITINOL, NITI. CAPTURE, CONIC, TAPER, THROMB+, EMBOLI, CLOT

Vea nuestro apartado de Información Tecnológica en la web de la OEPM para más detalles sobre la metodología seguida para la realización del informe, las bases de datos, la estrategia de búsqueda y la terminología de patentes

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Documentos más relevantes

En la sección final "Listados de referencias" se incluyen todas las referencias recuperadas que tienen que ver con el objeto de este informe. De entre todas ellas se han seleccionado los documentos más relevantes, que son los que se analizan en detalle comparándolos con el desarrollo técnico descrito por el cliente.

A continuación, se reseñan dichos documentos:

Nº Publicación	Fecha Publicación	Solicitante	Relevancia
WO2012161836A1	2011-12-01	(ECON-N) ECONUGENICS INC (ELIA-I) ELIAZ I	**
EP3141117A1	2012-07-05	(BETT-N) BETTER HEALTH PUBLISHING INC (ECON-N) ECONUGENICS INC	**
WO2005095463A1	2005-10-13	(GLYC-N) GLYCOGENESYS INC (LJOL-N) LA JOLLA PHARM CO (ROLK-I) ROLKE J (STAP-I) STAPLES M	**
WO0215715A1	2002-02-28	(RUIT-N) RUITENBERG CZN NV W (RUIT-N) RUITENBERG CZN NV (RUIT-N) RUITENBERG INGREDIENTS BV (GOOR-I) GOORHUIS J G M	**
WO0242484A2	2002-05-29	(DNON) NUTRICIA NV (SUED) SUEDZUCKER AG MANNHEIM/OCHSENFURT (SUED) SUEDZUCKER AG (KUNZ-I) KUNZ M (MUNI-I) MUNIR M (VOGE-I) VOGEL M	**
WO0247612A2	2002-06-20	(MANN-N) MANNATECH INC (MCAN-I) MCANALLEY B H	**
WO9809537A1	1998-03-12	(KIWI-N) KIWITECH LTD (UYOT-N) UNIV OTAGO (BEYE-I) BEYER R	**
EP0328317A	1989-08-16	(TAKE) TAKEDA CHEM IND LTD	**
WO9601640A1	1996-01-25	(UYWY) UNIV WAYNE STATE (KARM-N) KARMANOS CANCER INST BARBARA ANN (KARM-N) KARMANOS INST BARBARA ANN (MICH-N) MICHIGAN CANCER FOUND	**
WO9425493A1	1994-11-10	(USDA) US SEC OF AGRIC	**
CN101491275A	2009-07-29	(GUAN-N) GUANGDONG FOOD MEDICINE VOCATIONAL SCHOOL	**
JP2001161285A	2001-06-19	(KAWA-I) KAWANO T	**
US6258383B1	2000-02-14	(COCK-I) COCKRUM R H (GOHL-I) GOHLKE M B (LACT-N) LACTOFERRIN PROD CO	**

*** Documento muy relevante; ** Documento relevante; * Documento que ilustra el estado de la técnica de manera general

(Volver al Sumario)

Breve descripción del contenido de los documentos más relevantes en comparación con el desarrollo técnico propuesto por el cliente

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 oxígeno, 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.

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.

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WO0247612 (MANNATECH INC) Suplemento alimenticio que incluye lactoferrina, pectina y p-glucano que inhibe y previene los tumores.

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

EP3141117A1 (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 estómago 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.

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Conclusión

A la vista de los documentos anteriormente mencionados, podríamos concluir que son conocidas las 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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Observaciones generales

En caso de presentar una solicitud de patente o modelo de utilidad basada en este desarrollo técnico, se recomienda evitar reivindicaciones que sean demasiado generales, recogiendo en las mismas las características técnicas que se han identificado como novedosas en este estudio.

También se recomienda citar en esa posible solicitud las anterioridades relevantes mencionadas en este informe, incluyéndolas en la descripción como antecedentes de la invención y justificando qué aporta la solución desarrollada por el cliente respecto de las soluciones previas divulgadas en dichas anterioridades.

Además, debe argumentarse por qué dicha solución supone un salto técnico cualitativo con respecto a lo ya conocido, que va más allá de lo que se supone son la habilidad y la práctica rutinaria propias de un experto en la materia.

Las características técnicas secundarias se pueden incluir en la solicitud como reivindicaciones dependientes o subordinadas de la reivindicación principal (la que recoge los aspectos esenciales de la invención)[1].

Por otra parte, desde la realización de este informe hasta la presentación oficial de una solicitud de patente o modelo de utilidad pueden aparecer nuevas publicaciones relevantes, por lo que, en caso de demorarse la presentación de la solicitud, puede ser conveniente realizar una vigilancia tecnológica periódica en bases de datos nacionales e internacionales, utilizando, entre otras, las clasificaciones y palabras claves propuestas en la sección "Estrategia de búsqueda" de este informe.

También es importante recordar que no sólo las publicaciones de terceros anteriores a la fecha de solicitud destruyen su novedad, sino que también las propias acciones de divulgación y/o publicación anterior (artículos en revistas,

[1] Se recomienda la consulta gratuita al servicio de "Examinador de Guardia de Patentes" de la OEPM, accesible por teléfono, correo electrónico o en persona a través de los servicios de información general de la Oficina.

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exposición en ferias no oficiales, documentos técnicos departamentales de acceso general, etc.) de los mismos solicitantes de este informe pueden afectar al cumplimiento de los *requisitos de patentabilidad -novedad y actividad inventiva-* por la invención propuesta.

Por todo lo anterior, una vez redactada la posible solicitud y antes de presentarla al registro, sería recomendable un nuevo estudio para evaluar el cumplimiento de los requisitos de novedad y actividad inventiva en función del juego de reivindicaciones que se proponga.

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 cliente. 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.*

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Listados de referencias

Literatura Patente

1/29	@ WPI / 2017 Clarivate Analytics.
PN	US2012171228A1 2012-07-05 DW201247 WO2012094030A1 2012-07-12 DW201247 AU2011353785A1 2013-08-22 DW201357 CA2825989A1 2012-07-12 DW201362 EP2661173A1 2013-11-13 DW201374 US8916541B2 2014-12-23 DW201501 AU2011353785B2 2015-06-04 DW201541 EP2661173B1 2016-12-07 DW201681 EP3141117A1 2017-03-15 DW201720 ES2613949T3 2017-05-29 DW201747 EP2661173A4 2015-03-04 DW201770 CA2825989C 2018-01-09 DW201806 EP3141117B1 2021-03-03 DW2021020
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
PA	(BETT-N) BETTER HEALTH PUBLISHING INC (ECON-N) ECONUGENICS INC
ICAI	A01N31/04; A61K31/05; A61K31/065; A61K31/732; A61K31/734; A61K39/00; A61K39/39; A61K45/06; A61K9/02; A61K9/14; A61K9/20; A61K9/48; A61P35/00; A61P35/02; A61P35/04; A61P37/04;
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

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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).

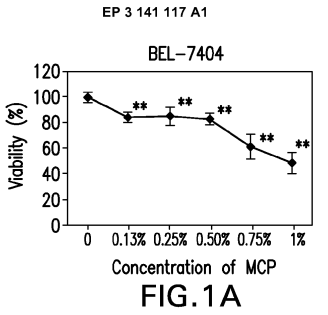

FIG.1A

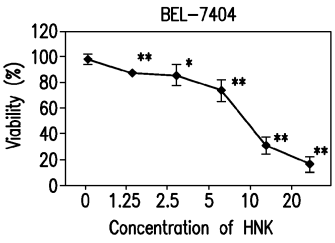

FIG.1B

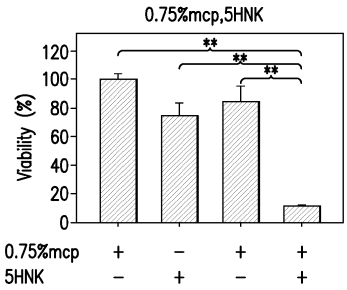

FIG.1C

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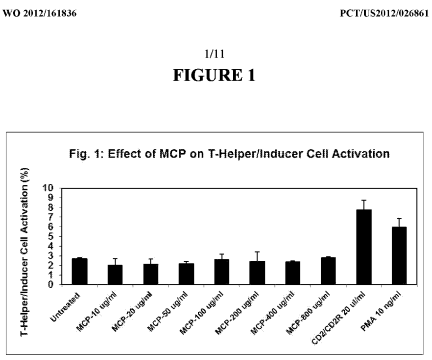
2/29	@ WPI / 2017 Clarivate Analytics.
PN	US2011294755A1 2011-12-01 DW201181 WO2012161836A1 2012-11-29 DW201279 AU2012259387A1 2013-09-19 DW201363 CA2828561A1 2012-11-29 DW201368 EP2680704A1 2014-01-08 DW201404 ZA201306511A 2014-10-29 DW201477 AU2012259387B2 2016-07-07 DW201651 US9427449B2 2016-08-30 DW201657 EP2680704A4 2015-04-15 DW201770 CA2828561C 2018-05-01 DW201831 EP3669882A2 2020-06-24 DW2020052 EP3669882A3 2020-07-15 DW2020059
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
PA	(ECON-N) ECONUGENICS INC (ELIA-I) ELIAZ I

(Volver al Sumario)

ICAI	A01N63/00; A61K31/715; A61K31/732; A61K31/734; A61P29/00; A61P35/00; A61P35/02; A61P35/04; A61P37/04; C08B37/00;
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.



3/29	@ WPI / 2017 Clarivate Analytics.
PN	CN101491275A 2009-07-29 DW200954
TI	Edible food pectin preservative film for use in fruit or vegetable preservation comprises pectin, deionized water and glycerin
PA	(GUAN-N) GUANGDONG FOOD MEDICINE VOCATIONAL SCHOOL
ICAI	A23B7/16;
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 :

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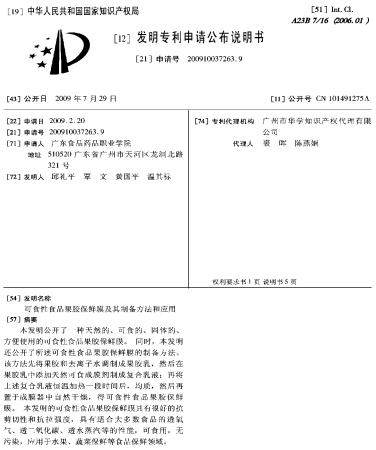
The edible food pectin preservative film has good anti-cutting property and anti-pulling intensity; does not contain pollution; and can be safely eaten. FOOD :

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.


[19] 中华人民共和国国家知识产权局
[12] 发明专利申请公布说明书
[21] 申请号 200910037263.9
[43] 公开日 2009 年 7 月 29 日
[11] 公开号 CN 101491275A
[22] 申请日 2009.2.20
[21] 申请号 200910037263.9
[71] 申请人 广东食品药品职业学院
地址 510520 广东省广州市天河区龙洞北路 321 号
[72] 发明人 邱礼平 翠 文 黄国平 温其标
[74] 专利代理机构 广州市华学知识产权代理有限公司
代理人 蒋 斯 陈燕娟
权利要求书 1 页 说明书 5 页
[54] 发明名称
可食性食品果胶保鲜膜及其制备方法和应用
[57] 摘要
本发明公开了一种天然的、可食的、具体的、方便使用的可食性食品果胶保鲜膜。同时，本发明还公开了所述可食性食品果胶保鲜膜的制备方法。该方法先将果胶和去离子水调制成果胶乳，然后在果胶乳中添加天然可食成膜物制成复合乳液；再将上述复合乳液均匀涂抹在一段时间后，均质，然后再置于成膜器中自然干燥，得可食性食品果胶保鲜膜。本发明的可食性食品果胶保鲜膜具有很好的抗剪切性和抗拉强度，具有适合大多数食品的透氧气、透二氧化碳、透水蒸汽等的性能，可食用，无污染，应用于水果、蔬菜保鲜等食品保鲜领域。

4/29	@ WPI / 2017 Clarivate Analytics.
PN	US7491708B1 2009-02-17 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
PA	(PLAT-I) PLATT D
ICAI	A61K31/715;
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

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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.

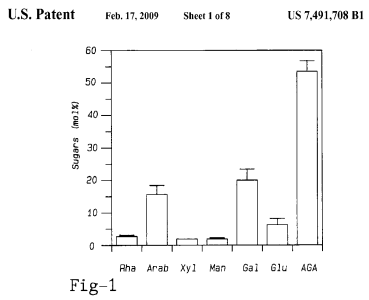

Fig-1

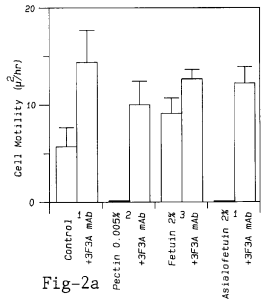

Fig-2a

5/29	@ WPI / 2017 Clarivate Analytics.
PN	DE202007009905U1 2008-12-11 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
PA	(ZENT-N) ZENTIS GMBH & CO KG
ICAI	A21D15/08; A23G1/36; A23G3/00; A23G3/40; A23P1/08;
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 :

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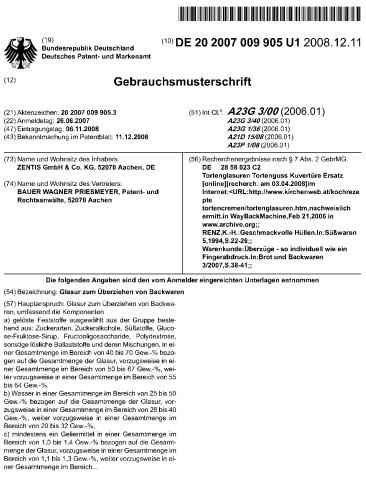

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A21D 13/00 (2006.01)
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(73) Name und Wohnsitz des Inhabers: ZENTIS GmbH & Co. KG, 52078 Aachen, DE
(74) Name und Wohnsitz des Vertreters: BAUER WAGNER PRIESMEYER, Patent- und Rechtsanwälte, 52070 Aachen
(56) Rechercheergebnisse nach § 7 Abs. 2 GebrMG:
DE 26 58 023 C2
Tortenglasuren Tortenguss Kuvertüre Ersatz [online][recherch. am 03.04.2008]Im Internet: <URL: http://www.kirchenweb.at/kochrezepte tortencremen/tortenglasuren.htm,nachweislich emitt.in WayBackMachine,Feb 21,2005 in www.archive.org;:
RENZ,K.-H.:Geschmackvolle Hüllen.In:Süßwaren 5.1994,S.22-26;:
Warenkunde:Überzüge - so individuell wie ein Fingerabdruck.In:Brot und Backwaren 3/2007,S.38-41;:
Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen
(54) Bezeichnung: Glasur zum Überziehen von Backwaren
(57) Hauptanspruch: Glasur zum Überziehen von Backwaren, umfassend die Komponenten
a) gelöste Feststoffe ausgewählt aus der Gruppe bestehend aus: Zuckerarten, Zuckeralkohole, Süßstoffe, Glucose-Fruktose-Sirup, Fruktooligosaccharide, Polydextrose, sonstige lösliche Ballaststoffe und deren Mischungen, in einer Gesamtmenge im Bereich von 40 bis 70 Gew.-% bezogen auf die Gesamtmenge der Glasur, vorzugsweise in einer Gesamtmenge im Bereich von 50 bis 67 Gew.-%, weiter vorzugsweise in einer Gesamtmenge im Bereich von 55 bis 64 Gew.-%,
b) Wasser in einer Gesamtmenge im Bereich von 25 bis 50 Gew.-% bezogen auf die Gesamtmenge der Glasur, vorzugsweise in einer Gesamtmenge im Bereich von 28 bis 40 Gew.-%, weiter vorzugsweise in einer Gesamtmenge im Bereich von 29 bis 32 Gew.-%,
c) mindestens ein Geliermittel in einer Gesamtmenge im Bereich von 1,0 bis 1,4 Gew.-% bezogen auf die Gesamtmenge der Glasur, vorzugsweise in einer Gesamtmenge im Bereich von 1,1 bis 1,3 Gew.-%, weiter vorzugsweise in einer Gesamtmenge im Bereich...

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).

6/29	@ WPI / 2017 Clarivate Analytics.
PN	CN101269087A 2008-09-24 DW200878 CN101269087B 2011-11-09 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
PA	(UYFM) UNIV CHINESE PLA FOURTH MILITARY MEDICAL (UYFM) UNIV NO 4 MILITARY MEDICINE PLA
ICAI	A61K31/7072; A61K31/732; A61K47/48; A61P35/00; C08B37/06;
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

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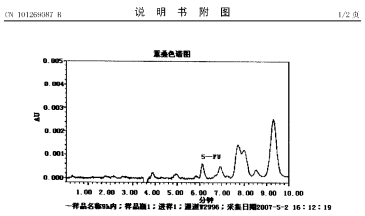

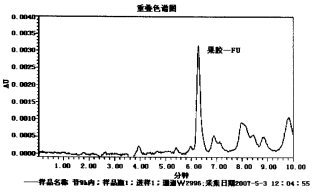

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by pectase hydrolyzing, methanol saponifying, water phase or alkaline hydrolysis, and sodium borohydride deoxidizing. The pectin target molecular weight segment is obtained by gel chromatography or molecular weight interception. The pectin is the colon 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° 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° 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° 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° 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° 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-fluorouracil 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° C. The reactant is poured in ethanol. The jelly is precipitated, filtered, drip washed by methanol, and dried in vacuum.

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7/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2007145520A1 2007-12-21 DW200808 EP2032170A1 2009-03-11 DW200919 CN101472612A 2009-07-01 DW200946 US2010215631A1 2010-08-26 DW201056 CN101472612B 2011-06-08 DW201171 EP2032170B1 2012-11-28 DW201279 BRPI0713642A2 2012-10-23 DW201319
TI	Composition useful for treating and preventing inflammatory diseases e.g. Arthritis comprises glycine and transferrin protein
PA	(DNON) NUTRICIA NV (HART-I) HARTOG A
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;
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/glycine. 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,

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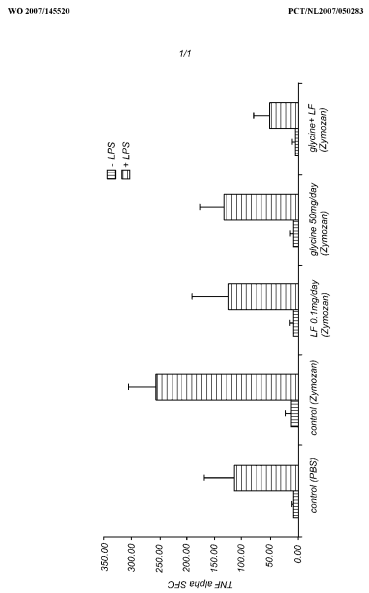
chondroitine, eicosapentaenoic acid containing oil, fish oil, prebiotics, probiotics, colostrum, uridinmonophosphate choline, phospholipids, vitamin B 1 and vitamin B 1 2. The composition (C1) in liquid form comprises glycine (0.5-50 mg/ml) and lactoferrin (0.1-25 mg/ml) and in nutritional composition 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.



8/29	@ WPI / 2017 Clarivate Analytics.
PN	US2008004237A1 2008-01-03 DW200835 CN101024085A 2007-08-29 DW200835 CN101024085B 2010-09-29 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
PA	(UYFM) UNIV PLA NO 4 MILITARY (UYFM) UNIV PLA NO 4 MILITARY MEDICAL (CHOI-I) CHOI D K M (MEIQ-I) MEI Q (TAMJ-I) TAM J C
ICAI	A61K31/513; A61K31/716; A61K35/00; A61K47/36; A61K47/48; C08B37/00; C12P19/04;
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.

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- 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°C constant temperature, and then acetic anhydride (35 ml) was added. The mixture was stirred for 3 hours at a constant temperature of 70°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°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°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°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°C for 24 hr to obtain a light yellow precipitate of Pectin-5-FU.

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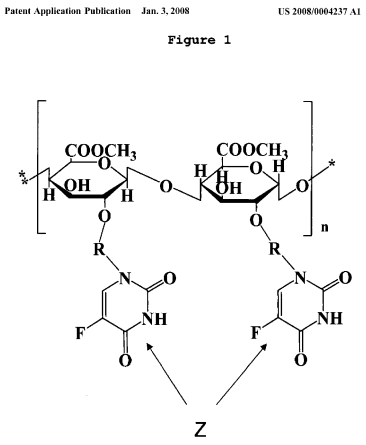

9/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2006098625A1 2006-09-21 DW200666 EP1833495A1 2007-09-19 DW200763 AU2006223754A1 2007-10-04 DW200810 DE212006000025U1 2008-02-07 DW200812 EP1833495B1 2008-02-06 DW200812 DE602006000511E 2008-03-20 DW200822 KR20070110518A 2007-11-19 DW200839 ES2301152T3 2008-06-16 DW200845 CN101166535A 2008-04-23 DW200847 US2008193551A1 2008-08-14 DW200856 JP2008533134A 2008-08-21 DW200857 DE602006000511T2 2009-01-29 DW200909 AU2008100924A4 2008-10-23 DW200929 AU2008100926A4 2008-10-23 DW200929 TW200719908A 2007-06-01 DW200934 AU2009100377A4 2009-05-28 DW200955 AU2008100924B4 2009-05-21 DW200957 AU2006223754B2 2008-11-06 DW200960 AU2008100926B4 2008-11-06 DW200962 JP2010100627A 2010-05-06 DW201030 RU2445105C2 2012-03-20 DW201220 US8147875B2 2012-04-03 DW201224 KR101242428B1 2013-03-12 DW201330 TWI383797B 2013-02-01 DW201338
TI	Use of lactoferrin-containing whey protein fraction for preparation of an oral composition for treatment of acne
PA	(FRIL) CAMPINA NEDERLAND HOLDING BV
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;
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.

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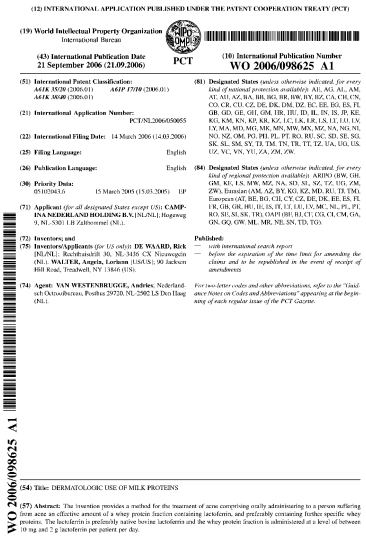
- USE : For preparation of an oral composition for the treatment of acne (claimed).
- ADVANTAGE : The oral composition provides means and method for the treatment of acne using natural or nature-like agents and having improved effectiveness avoiding adverse side effects. Additional topical treatment 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).


(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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21 September 2006 (21.09.2006)

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WO 2006/098625 A1

(54) Title: DERMATOLOGIC USE OF MILK PROTEINS

WO 2006/098625 A1

10/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2005095463A1 2005-10-13 DW200576 US2005250735A1 2005-11-10 DW200576 EP1765874A1 2007-03-28 DW200725 US8128966B2 2012-03-06 DW201217 US2012123102A1 2012-05-17 DW201234 US8187642B1 2012-05-29 DW201236 US2012149658A1 2012-06-14 DW201240 US2012309711A1 2012-12-06 DW201281 US2012315309A1 2012-12-13 DW201282 US8409635B2 2013-04-02 DW201323 US8420133B2 2013-04-16 DW201326 US2013243831A1 2013-09-19 DW201362 US2013251765A1 2013-09-26 DW201364 US8658224B2 2014-02-25 DW201415 US8722107B2 2014-05-13 DW201432 US8722111B2 2014-05-13 DW201432 US2014228317A1 2014-08-14 DW201453 US8877263B2 2014-11-04 DW201472 US2015086642A1 2015-03-26 DW201522 EP2926818A1 2015-10-07 DW201566 US9181354B2 2015-11-10 DW201575 US2016030467A1 2016-02-04 DW201611
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

(Volver al Sumario)

PA	(GLYC-N) GLYCOGENESYS INC (LJOL-N) LA JOLLA PHARM CO (ROLK-I) ROLKE J (STAP-I) STAPLES M
ICAI	A01N65/00; A61K31/732; A61K36/00; A61K9/14; A61P35/00; C08B37/00; C08B37/06; C08L5/06;
AB	- NOVELTY : Modified pectin material (I) (that inhibits cancer cell proliferation with an median inhibitory concentration (IC 50) value of less than 200 µg/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 µg/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 µm; 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) µm. 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 µg/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

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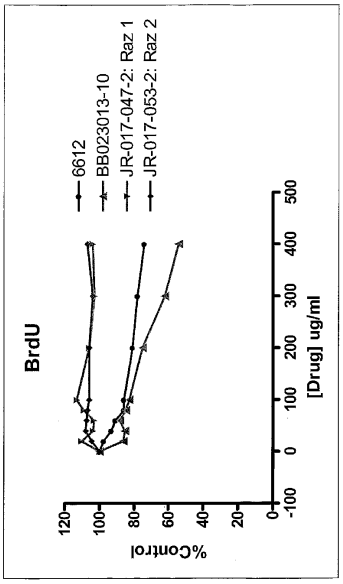
(preferably 2.5-3.5). The preparation of the deesterified and partially depolymerized modified pectin further comprises treating the solution to reduce the concentration of endotoxins; purifying a solution of the modified pectin by ultrafiltration. (I) inhibits cancer cell proliferation with an IC 50value of less than 100 (preferably 30-50) µg/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°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.



11/29	@ WPI / 2017 Clarivate Analytics.
PN	US2005202149A1 2005-09-15 DW200573 WO2005086976A2 2005-09-22 DW200573 EP1734832A2 2006-12-27 DW200702 AU2005221216A1 2006-10-12 DW200720 JP2007528228A 2007-10-11 DW200768 IN5150DELNP2006A 2007-08-24 DW200780 CN1997282A 2007-07-11 DW200801 US8137728B2 2012-03-20 DW201221 WO2005086976A3 2006-10-12 DW201222
TI	Emulsion system for delivery of food-grade hydrophobic component, comprises hydrophobic component in aqueous medium; and indigestible food-grade component(s)
PA	(UMAC) UNIV MASSACHUSETTS (DECK-I) DECKER E A (MCCL-I) MCCLEMENTS D J
ICAI	A23D7/00; A23D7/005; A23D9/00; A23L1/30; A23L1/308;
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;

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(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

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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.

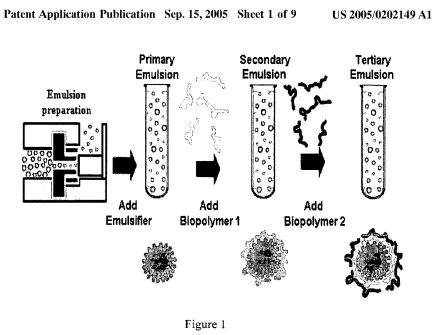

Figure 1

12/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2005063059A1 2005-07-14 DW200556 EP1699304A1 2006-09-13 DW200660 AU2004308061A1 2006-07-13 DW200707 BRPI0416722A 2007-01-16 DW200708 INMUMNP200600738E 2007-03-23 DW200730 US2007166437A1 2007-07-19 DW200749 ZA200604294A 2007-10-31 DW200781 EP1699304B1 2008-09-17 DW200862 DE602004016685E 2008-10-30 DW200874 AU2004308061B2 2008-09-11 DW200925 IN229747B 2009-03-27 DW200982 ES2313100T3 2009-03-01 DW201338
TI	Edible barrier useful in food products e.g. in leaking ingredients comprises a cross-linked biopolymer and a lipid material
PA	(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
ICAI	A21D13/00; A21D15/08; A23B7/16; A23L1/00; A23L1/325; A23P1/08; B65D85/78;
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

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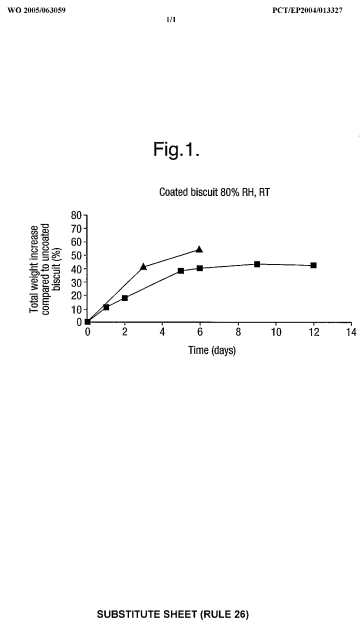
contains ferulic acid and one or two fatty acid chains coupled to a vanillin coupled polymer e.g. chitosan. The cross-linked biopolymer is crosslinked to a protein or vanillin coupled protein (e.g. casein-vanillin).



13/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2004091634A1 2004-10-28 DW200476 US2004223971A1 2004-11-11 DW200476 EP1617849A1 2006-01-25 DW200608 AU2004229399A1 2004-10-28 DW200615 JP2006522163A 2006-09-28 DW200667 US2008089959A1 2008-04-17 DW200830 EP1617849B1 2008-06-18 DW200841 DE602004014485E 2008-07-31 DW200853 EP1980257A1 2008-10-15 DW200868 IN5019DELNP2005A 2009-10-02 DW200982 AU2004229399B2 2010-08-05 DW201058 CA2521649C 2013-05-28 DW201339 US2014148404A1 2014-05-29 DW201435 US2015133399A1 2015-05-14 DW201532 US2016346317A1 2016-12-01 DW201680
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)
PA	(GLYC-N) GLYCOGENESYS INC (LJOL-N) LA JOLLA PHARM CO (PROS-N) PROSPECT THERAPEUTICS INC (CHAN-I) CHANG Y (SASA-I) SASAK V
ICAI	A61K31/00; A61K31/70; A61K31/702; A61K31/7105; A61K31/718; A61K31/732; A61K36/752; A61K39/395; A61K45/00; A61K45/06; A61P35/00; A61P43/00; C08B37/00;
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

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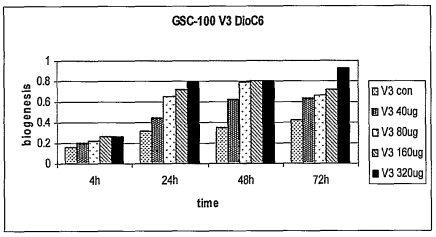
an anti-apoptotic Bcl-2 protein for the cell; and (I) to reduce the levels of one or more G1/S cyclins in the cell;
(2) reducing the rate of growth of a tumor cell or a cell undergoing unwanted proliferation which expresses galectin-3 in a patient, comprising obtaining a sample of the cell from a patient; 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,

(Volver al Sumario)

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, 17α-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-

(Volver al Sumario)



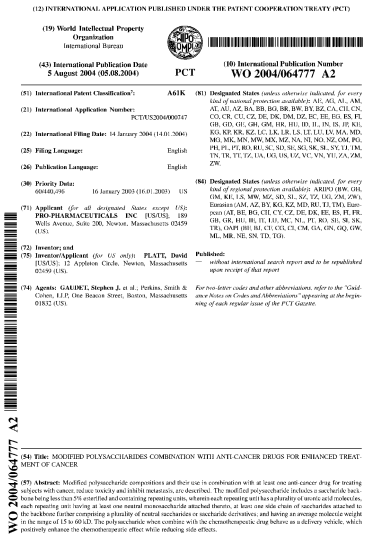
3 and binds to galectin-3 with a Kd of 10 <-><6>M or less. (I) inhibits interaction of galectin-3 with Bcl-2, inhibits phosphorylation of galectin-3 at Ser-6, inhibits translocation of galectin-3 between the nucleus and cytoplasm or inhibits galectin-3 translocation to the perinuclear membranes, inhibits 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.

14/29	@ WPI / 2017 Clarivate Analytics.
PN	WO2004064777A2 2004-08-05 DW200457 EP1592432A2 2005-11-09 DW200573 US2005282773A1 2005-12-22 DW200603 JP2006515647A 2006-06-01 DW200637 WO2004064777A3 2005-09-09 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
PA	(PROP-N) PRO-PHARM INC
ICAI	A61K31/337; A61K31/513; A61K31/715; A61K45/06; A61K47/36; A61K47/48; A61P35/00; C08B37/00;
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.

(Volver al Sumario)

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, 5β, 9β,10β-trihydroxy-, cyclic 9,10-acetal with acetone, acetate, taxane-2,13-dione, 5β 9β, 10β-trihydroxy-trihydroxy-, cyclic 9,10-acetal with acetone, taxane-2β,5β 9β,10β-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.

(Volver al Sumario)



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(71) Applicant (for all designated States except US): PRO-PHARMACEUTICALS INC [US/US]. 189 Wells Avenue, Suite 200, Newton, Massachusetts 02459 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PLATT, David [US/US]. 12 Appleton Circle, Newton, Massachusetts 02459 (US).

(74) Agents: GAUDET, Stephen J. et al.; Perkins, Smith & Cohen, LLP, One Beacon Street, Boston, Massachusetts 01832 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): 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.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/064777 A2

(54) Title: MODIFIED POLYSACCHARIDES COMBINATION WITH ANTI-CANCER DRUGS FOR ENHANCED TREATMENT OF CANCER

(57) Abstract: Modified polysaccharide compositions and their use in combination with at least one anti-cancer drug for treating subjects with cancer, reduce toxicity and inhibit metastasis, are described. The modified polysaccharide includes a saccharide backbone being less than 5% esterified and containing repeating units, wherein each repeating unit has a plurality of uronic acid residues, each repeating unit having at least one neutral monosaccharide attached thereto, at least one side chain of saccharides attached to the backbone further comprising a plurality of neutral saccharides or saccharide derivatives, and having an average molecular weight in the range of 15 to 60 kD. The polysaccharide when combine with the chemotherapeutic drug behave as a delivery vehicle, which positively enhance the chemotherapeutic effect while reducing side effects.

15/29	@ WPI / 2017 Clarivate Analytics.
PN	WO03063620A2 2003-08-07 DW200358 NL1019890C2 2003-08-07 DW200367 AU2003208662A1 2003-09-02 DW200422 WO03063620A3 2003-11-20 DW201209
TI	Edible coating layer for composite foods, e.g. pastry, pizzas, meat rolls or salad rolls, comprises gel-forming biopolymer in gelled condition
PA	(NEDE) NEDERLANDSE ORG TOEGEPAST (NEDE) NEDERLANDSE ORG TOEGEPAST NATUURWETENSCH
ICAI	A21D13/00; A21D15/08; A23L1/00; A23P1/08;
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 :

(Volver al Sumario)

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.

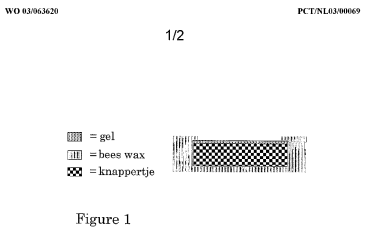
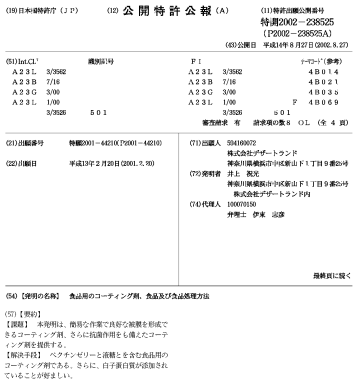


Figure 1

16/29	@ WPI / 2017 Clarivate Analytics.
PN	JP2002238525A 2002-08-27 DW200332
TI	Coating agent for foodstuff to suppresses generation of mold and bacteria contains pectin jelly and liquid sugar
PA	(DESS-N) DESSERT LAND KK
ICAI	A23B7/16; A23G3/00; A23G3/34; A23L1/00; A23L3/3526; A23L3/3562;
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.



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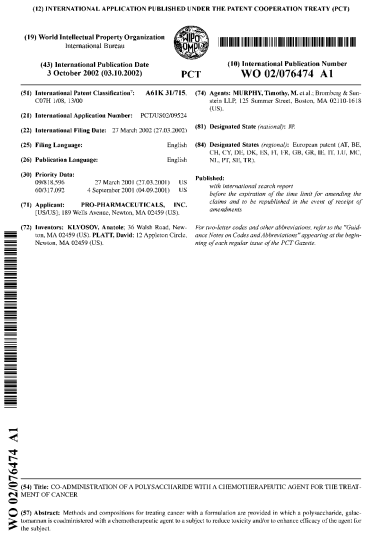
17/29	@ WPI / 2017 Clarivate Analytics.
PN	WO02076474A1 2002-10-03 DW200278 US2003064957A1 2003-04-03 DW200325 US6645946B1 2003-11-11 DW200382 EP1383516A1 2004-01-28 DW200409 JP2004525143A 2004-08-19 DW200455 US7012068B2 2006-03-14 DW200620 EP2301556A1 2011-03-30 DW201124 JP4744782B2 2011-08-10 DW201154 EP1383516B1 2011-11-09 DW201173 ES2376739T3 2012-03-16 DW201310 EP1383516A4 2007-08-01 DW201752
TI	Pharmaceutical formulation useful for the treatment of cancer comprises a mixture of galactomannan polysaccharide and a chemotherapeutic agent
PA	(GALE-N) GALECTIN THERAPEUTICS INC (PROP-N) PRO-PHARM INC (KLYO-I) KLYOSOV A (PLAT-I) PLATT D
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;
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. : β-1,4 D-galactomannan is specifically claimed as GM. Adriamycin and 5-fluorouracil (5-FU) are specifically claimed as the chemotherapeutic agent.

(Volver al Sumario)



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before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(71) Applicant: PRO-PHARMACEUTICALS, INC. [US/US]; 185 Wells Avenue, Newton, MA 02459 (US).

(72) Inventors: KEYOSOV, Anatole; 36 Walsh Road, Newton, MA 02459 (US). PLATT, David; 12 Appleton Circle, Newton, MA 02459 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

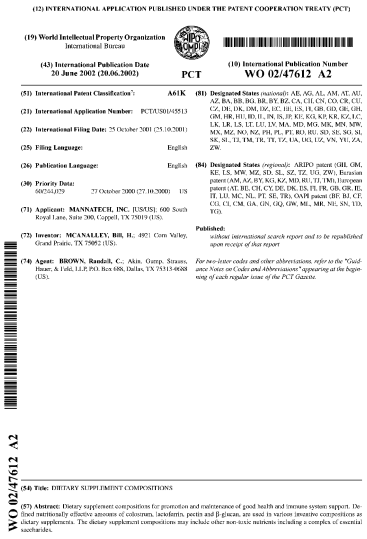
WO 02/076474 A1

(54) Title: CO-ADMINISTRATION OF A POLYSACCHARIDE WITH A CHEMOTHERAPEUTIC AGENT FOR THE TREATMENT OF CANCER

(57) Abstract: Methods and compositions for treating cancer with a formulation are provided in which a polysaccharide, galactomannan is coadministered with a chemotherapeutic agent to a subject to reduce toxicity and/or to enhance efficacy of the agent for the subject.

18/29	@ WPI / 2017 Clarivate Analytics.
PN	WO0247612A2 2002-06-20 DW200255 US2002119928A1 2002-08-29 DW200259 AU4326702A 2002-06-24 DW200267 AU2002243267A8 2005-10-06 DW200612 WO0247612A3 2002-12-27 DW201204
TI	Novel dietary supplements for use as immunostimulants, containing beta-glucan and colostrum and/or lactoferrin
PA	(MANN-N) MANNATECH INC (MCAN-I) MCANALLEY B H
ICAI	A23L1/305; A23L1/308; A61K35/20; A61K38/40; A61K45/06;
AB	- NOVELTY : Novel dietary supplements containing β-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 β-glucan and colostrum and/or lactoferrin has a second effect comprising enhancing bile acid excretion, enhancing cholesterol excretion,

(Volver al Sumario)



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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International Bureau

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PCT

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(51) International Patent Classification[7]: A61K

(21) International Application Number: PCT/US01/45513

(22) International Filing Date: 25 October 2001 (25.10.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/254,079 27 October 2000 (27.10.2000) US

(71) Applicant: MANNATECH, INC. [US/US]; 600 South Royal Lane, Suite 200, Coppell, TX 75019 (US).

(72) Investor: MCANALLEY, Bill, H.; 4951 Corn Valley, Grand Prairie, TX 75052 (US).

(74) Agent: BROWN, Randall, C.; Akin, Gump, Strauss, Hauer, & Feld, LLP, P.O. Box 688, Dallas, TX 75313-0688 (US).

(81) Designated States (national): 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.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 02/47612 A2

(54) Title: DIETARY SUPPLEMENT COMPOSITIONS

(57) Abstract: Dietary supplement compositions for promotion and maintenance of good health and immune system support. Defined nutritionally effective amounts of colostrum, lactoferrin, pectin and β-glucan, are used in various inventive compositions as dietary supplements. The dietary supplement compositions may include other non-toxic nutrients including a complex of essential saccharides.

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% β-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% β-glucan.

19/29	@ WPI / 2017 Clarivate Analytics.
PN	DE10057976A1 2002-05-29 DW200255
	WO0242484A2 2002-05-30 DW200255
	AU3318902A 2002-06-03 DW200263
	EP1373543A2 2004-01-02 DW200409
	US2004072791A1 2004-04-15 DW200426
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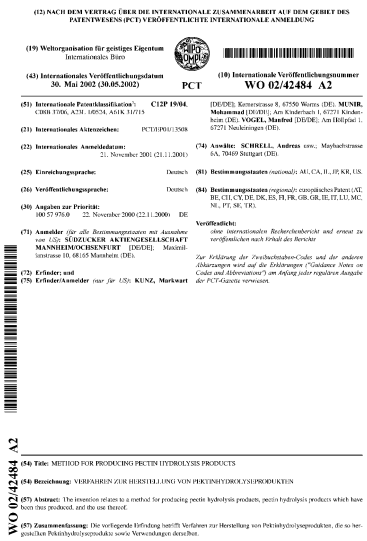
	DE10057976B4 2005-02-03 DW200510
	AU2002233189B2 2006-09-07 DW200712
	JP2008067712A 2008-03-27 DW200825

(Volver al Sumario)

	JP4091652B2 2008-05-28 DW200843 EP1944033A2 2008-07-16 DW200849 EP1944033A3 2008-07-30 DW200852 KR100797242B1 2008-01-23 DW200901 JP4194839B2 2008-12-10 DW200903 US2009186833A1 2009-07-23 DW200950 EP1944033B1 2009-07-29 DW200951 US7576070B2 2009-08-18 DW200955 DE50115018G 2009-09-10 DW200959 ES2329515T3 2009-11-26 DW200979 EP1373543B1 2010-02-03 DW201010 DE50115336G 2010-03-25 DW201022 EP2192190A1 2010-06-02 DW201036 EP2308989A2 2011-04-13 DW201127 EP2308989A3 2011-06-15 DW201139 US7960351B2 2011-06-14 DW201139 US2011195918A1 2011-08-11 DW201153 EP2192190B1 2011-10-26 DW201170 WO0242484A3 2003-10-16 DW201208 ES2374897T3 2012-02-23 DW201228 IL155767A 2012-06-28 DW201245 CA2428473C 2012-11-13 DW201277 US8435958B2 2013-05-07 DW201331 ES2339531T3 2010-05-21 DW201336
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
PA	(DNON) NUTRICIA NV (SUED) SUEDZUCKER AG MANNHEIM/OCHSENFURT (SUED) SUEDZUCKER AG (KUNZ-I) KUNZ M (MUNI-I) MUNIR M (VOGE-I) VOGEL M
ICAI	A23B4/00; A23C9/123; A23C9/13; A23C9/152; A23K1/16; A23L29/231; 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;
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.

(Volver al Sumario)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(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität: 100 57 970.0 22. November 2000 (22.11.2000) DE

(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): SÜDZUCKER AKTIENGESELLSCHAFT MANNHEIM/OCHSENFURT [DE/DE]; Maximilianstrasse 10, 68165 Mannheim (DE).

(72) Erfinder; und

(75) Erfinder/Anmelder (nur für US): KUNZ, Markwart [DE/DE]; Kernerstrasse 8, 67550 Worms (DE). MUNIR, Muhammad [DE/DE]; Am Kinderbach 1, 67271 Kirchheim (DE). VOGEL, Manfred [DE/DE]; Am Hübpfad 1, 67271 Neuhemsingen (DE).

(74) Anwälte: SCHRELL, Andreas et al.; Mayhaidstrasse 6A, 70469 Stuttgart (DE).

(81) Bestimmungsstaaten (national): AU, CA, IL, JP, KR, US.

(84) Bestimmungsstaaten (regional): europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

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Zur Erklärung der Zweibuchstaben-Codes und der anderen Abkürzungen wird auf die Erklärungen („Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

WO 02/42484 A2

(54) Title: METHOD FOR PRODUCING PECTIN HYDROLYSIS PRODUCTS

(54) Bezeichnung: VERFAHREN ZUR HERSTELLUNG VON PECTINHYDROLYSEPRODUKTEN

(57) Abstract: The invention relates to a method for producing pectin hydrolysis products, pectin hydrolysis products which have been thus produced, and the use thereof.

(57) Zusammenfassung: Die vorliegende Erfindung betrifft Verfahren zur Herstellung von Pektinhydrolyseprodukten, die so hergestellten Pektinhydrolyseprodukte sowie Verwendungen derselben.

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°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°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 aureusand E. colito human uroepithelial cells by more than 95%, whereas raffinose, nystose and isomelezitose showed no reduction in the microbial adhesion.

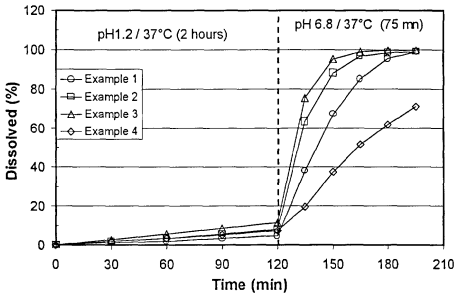
20/29	@ WPI / 2017 Clarivate Analytics.
PN	EP1184033A1 2002-03-06 DW200241 WO0217886A1 2002-03-07 DW200241 AU1044902A 2002-03-13 DW200249 EP1315479A1 2003-06-04 DW200337 KR20030029900A 2003-04-16 DW200353 US2003175335A1 2003-09-18 DW200362 BR0113663A 2004-01-06 DW200409 CN1452481A 2003-10-29 DW200409 JP2004507581A 2004-03-11 DW200419 NZ524247A 2004-12-24 DW200506 MXPA03001855A 2005-09-01 DW200615 US7041315B2 2006-05-09 DW200632 EP1315479B1 2006-11-15 DW200677 DE60124563E 2006-12-28 DW200703 AU2002210449B2 2006-10-26 DW200723 ES2274905T3 2007-06-01 DW200738 DE60124563T2 2007-09-20 DW200764 MX246036B 2007-05-28 DW200843 JP4780898B2 2011-09-28 DW201163 EP1315479B2 2015-10-21 DW201570 IN240MUMNP2003A 2005-02-11 DW201757 EA7563B1 2006-12-29 DW201953
TI	Film composition useful for the manufacture of hard enteric capsules comprises pectin, a second film-forming polymer and a setting system
PA	(WARN) WARNER LAMBERT CO LLC (WARN) WARNER LAMBERT CO (WARN) WARNER-LAMBERT CO LLC (CAPS-N) CAPSUGEL BELGIUM NV (CADE-I) CADE D (HEXX-I) HE X (SCOT-I) SCOTT R A

(Volver al Sumario)

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;
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°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°C for solubilization. After debubbling, the solution was equilibrated at 60°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°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°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.

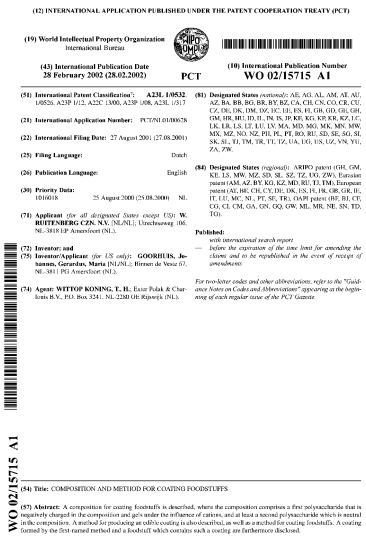
(Volver al Sumario)

FIG. 1



21/29	@ WPI / 2017 Clarivate Analytics.
PN	WO0215715A1 2002-02-28 DW200234 NL1016018C2 2002-03-01 DW200237 AU9436701A 2002-03-04 DW200247 EP1311165A1 2003-05-21 DW200334 CZ20030475A3 2003-08-13 DW200357 HU0300827A2 2003-09-29 DW200369 US2004037922A1 2004-02-26 DW200416 JP2004506435A 2004-03-04 DW200417 CN1604743A 2005-04-06 DW200554 RU2271669C2 2006-03-20 DW200622 EP1311165B1 2006-11-22 DW200677 DE60124729E 2007-01-04 DW200705 AU2001294367B2 2006-07-20 DW200707 ES2277607T3 2007-07-16 DW200753 CN1311758C 2007-04-25 DW200757 DE60124729T2 2007-09-13 DW200761 IL154489A 2007-07-24 DW200762 US7323202B2 2008-01-29 DW200810 CA2420473C 2008-11-04 DW200876 JP2011103896A 2011-06-02 DW201137 JP4748921B2 2011-08-17 DW201154 PL221461B1 2016-04-29 DW201631
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
PA	(RUIT-N) RUITENBERG CZN NV W (RUIT-N) RUITENBERG CZN NV (RUIT-N) RUITENBERG INGREDIENTS BV (GOOR-I) GOORHUIS J G M
ICAI	A22C13/00; A23L1/00; A23L1/05; A23L1/0526; A23L1/0528; A23L1/0532; A23L1/317; A23P1/08; A23P1/12; B65D81/34; B65D85/08;
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

(Volver al Sumario)



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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PCT

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(71) Applicant (for all designated States except US): W. RUITENBERG CZN. N.V. [NL/NL]; Utrechtseweg 106, NL-3818 DP Amersfoort (NL).

(72) Inventor; and
(75) Inventor/Applicant (for US only): GOORHUIS, Johannes, Gerardus, Maria [NL/NL]; Birnen de Vesse 67, NL-3811 PG Amersfoort (NL).

(74) Agent: WITTOP KONING, T., H.; Exter Polak & Charlois B.V., P.O. Box 3241, NL-2280 GE Rijswijk (NL).

(81) Designated States (national): 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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with international search report
before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 02/15715 A1

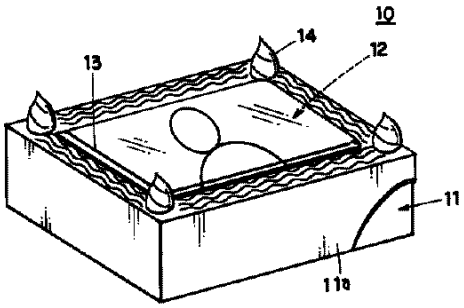
(54) Title: COMPOSITION AND METHOD FOR COATING FOODSTUFFS

(57) Abstract: A composition for coating foodstuffs is described, where the composition comprises a first polysaccharide that is negatively charged in the composition and gels under the influence of cations, and at least a second polysaccharide which is neutral in the composition. A method for producing an edible coating is also described, as well as a method for coating foodstuffs. A coating formed by the first-named method and a foodstuff which contains such a coating are furthermore disclosed.

(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°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°C and pre-heated for 10 minutes in a steam cooker at 85°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.

(Volver al Sumario)

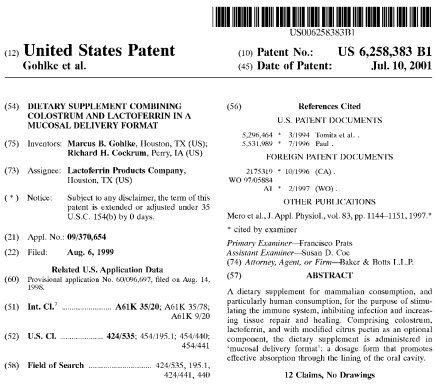
22/29	@ WPI / 2017 Clarivate Analytics.
PN	JP2001161285A 2001-06-19 DW200151 JP3273507B2 2002-04-08 DW200227
TI	Foodstuff with decorations such as cake and cookies, having edible film printed with edible ink, is coated with transparent/semi-transparent edible coating material
PA	(KAWA-I) KAWANO T
ICAI	A21D13/00; A23G1/00; A23G1/30; A23G3/00; A23G3/34; A23G3/50; A23L1/00; A23P1/08;
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°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.



23/29	@ WPI / 2017 Clarivate Analytics.
PN	CA2279791A1 2000-02-14 DW200035 US6258383B1 2001-07-10 DW200141 US2001009681A1 2001-07-26 DW200146 US2002004073A1 2002-01-10 DW200208 US6475511B2 2002-11-05 DW200276 US2002187200A1 2002-12-12 DW200301 US6780438B2 2004-08-24 DW200457 US2005025837A1 2005-02-03 DW200511 US2007009609A1 2007-01-11 DW200706 US2010221359A1 2010-09-02 DW201058 CA2279791C 2011-11-08 DW201180 US6410058B2 2002-06-25 DW201512
TI	Dietary supplement comprising lactoferrin and colostrum to promote resitance or suppress infection, stimulate immune function or incease in tissue repair and healing
PA	(COCK-I) COCKRUM R H (GOHL-I) GOHLKE M B (LACT-N) LACTOFERRIN PROD CO

(Volver al Sumario)

ICAI	A23C9/20; A23L1/305; A61K35/20; A61K36/752; A61K38/40; A61P3/02; A61P31/00; A61P37/00;
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.



US006258383B1

(12) **United States Patent**
Gohlke et al.

(10) **Patent No.: US 6,258,383 B1**
(45) **Date of Patent: Jul. 10, 2001**

(54) **DIETARY SUPPLEMENT COMBINING COLOSTRUM AND LACTOFERRIN IN A MUCOSAL DELIVERY FORMAT**

(75) Inventors: **Marcus B. Gohlke**, Houston, TX (US); **Richard H. Cockrum**, Perry, IA (US)

(73) Assignee: **Lactoferrin Products Company**, Houston, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/370,654**

(22) Filed: **Aug. 6, 1999**

Related U.S. Application Data

(60) Provisional application No. 60/096,697, filed on Aug. 14, 1998.

(51) **Int. Cl.**[7] **A61K 35/20**; A61K 35/78; A61K 9/20

(52) **U.S. Cl.** **424/535**; 454/195.1; 454/440; 454/441

(58) **Field of Search** 424/535, 195.1, 424/441, 440

(56) **References Cited**

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5,531,989 * 7/1996 Paul .

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WO 97/05884 A1 * 2/1997 (WO) .

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Primary Examiner—Francisco Prats
Assistant Examiner—Susan D. Coe
(74) *Attorney, Agent, or Firm*—Baker & Botts L.L.P.

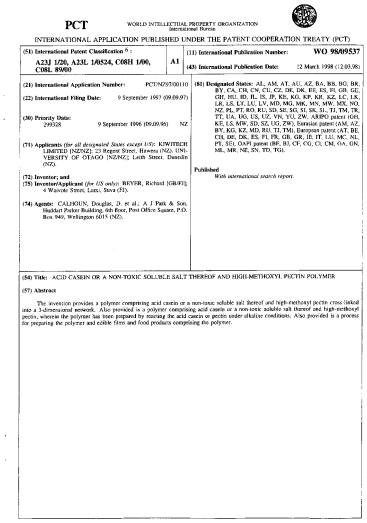
(57) **ABSTRACT**

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.

12 Claims, No Drawings

24/29	@ WPI / 2017 Clarivate Analytics.
PN	WO9809537A1 1998-03-12 DW199817 AU4324097A 1998-03-26 DW199832 AU717633B 2000-03-30 DW200026 NZ334481A 2000-08-25 DW200049 US2002004089A1 2002-01-10 DW200208 US6403130B2 2002-06-11 DW200244
TI	Polymer used in food products and in edible films - comprises acid casein or its non toxic soluble salt and high methoxyl pectin
PA	(KIWI-N) KIWITECH LTD (UYOT-N) UNIV OTAGO (BEYE-I) BEYER R
ICAI	A23J1/20; A23J3/10; A23L1/00; A23L1/0524; A23L1/0562; A23L29/231; A23P1/08; C08H1/00; C08L89/00;
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.

(Volver al Sumario)



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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : A23J 1/20, A23L 1/0524, C08H 1/00, C08L 89/00 — A1

(11) International Publication Number: WO 9809537

(43) International Publication Date: 12 March 1998 (12.03.98)

(21) International Application Number: PCT/NZ97/00110

(22) International Filing Date: 9 September 1997 (09.09.97)

(30) Priority Data: 299328 NZ 9 September 1996 (09.09.96)

(71) Applicants (for all designated States except US): KIWITECH LIMITED [NZNZ]; 23 Regent Street, Hawera (NZ). UNIVERSITY OF OTAGO [NZNZ]; Leith Street, Dunedin (NZ).

(72) Inventor; and

(75) Inventor/Applicant (for US only): REVIER, Richard [GB/IT]; 4 Waiwiri Street, Lake, Siwa (IT).

(74) Agents: CALHOUN, Douglas, D. et al.; A J Park & Son, Hazlett Parker Building, 6th floor, Post Office Square, P.O. Box 949, Wellington 6015 (NZ).

(81) Designated States: 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, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published: With international search report.

(54) Title: ACID CASEIN OR A NON-TOXIC SOLUBLE SALT THEREOF AND HIGH-METHOXYL PECTIN POLYMER

(57) Abstract

The invention provides a polymer comprising acid casein or a non-toxic soluble salt thereof and high-methoxyl pectin cross-linked into a 3-dimensional network. Also provided is a polymer comprising acid casein or a non-toxic soluble salt thereof and high-methoxyl pectin, wherein the polymer has been prepared by reacting the acid casein or pectin under alkaline conditions. Also provided is a process for preparing the polymer and edible films and food products comprising the 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.

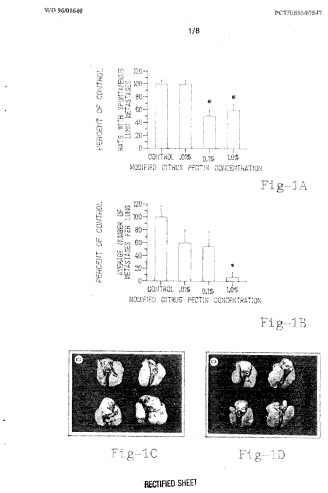
- USE : The polymer is used in food products, as edible films. These films will be useful for forming new convenience foods, by inhibiting cross-contamination of liquids and flavours in the same product. The polymer can be sprayed onto the surface of foods, such as coconut, cereal, peanuts or almonds 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°C.

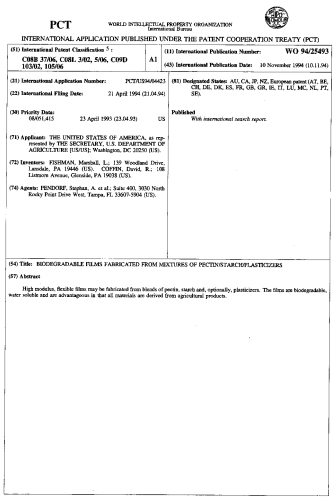
25/29	@ WPI / 2017 Clarivate Analytics.
PN	WO9601640A1 1996-01-25 DW199612 AU2944295A 1996-02-09 DW199619 NO970039A 1997-02-17 DW199718 EP0768885A1 1997-04-23 DW199721 FI965269A 1997-03-07 DW199723 BR9508245A 1997-09-30 DW199748 MX9700118A1 1997-06-01 DW199825 AU695677B 1998-08-20 DW199845 US5834442A 1998-11-10 DW199901 JPH11503715A 1999-03-30 DW199923 US5895784A 1999-04-20 DW199923 CN1157567A 1997-08-20 DW200137 NO311493B1 2001-12-03 DW200203 EP0768885B1 2004-09-22 DW200462 DE69533550E 2004-10-28 DW200471 ES2227555T3 2005-04-01 DW200524 DE69533550T2 2005-09-22 DW200562 MX227262B 2005-04-15 DW200571 JP2008111002A 2008-05-15 DW200836
TI	Treating cancer in mammals by oral admin. of modified pectin - esp. to inhibit metastasis of prostatic cancer
PA	(UYWY) UNIV WAYNE STATE (KARM-N) KARMANOS CANCER INST BARBARA ANN (KARM-N) KARMANOS INST BARBARA ANN (MICH-N) MICHIGAN CANCER FOUND
ICAI	A61K31/715; A61K31/732; A61P35/00; A61P35/04; B32B15/08; C08B37/00; C08B37/06; C08G77/04; C08J5/24; C08L83/04; D06M15/643;
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.

(Volver al Sumario)

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.



26/29	@ WPI / 2017 Clarivate Analytics.
PN	WO9425493A1 1994-11-10 DW199444 AU6711094A 1994-11-21 DW199508 US5451673A 1995-09-19 DW199543 EP0699211A1 1996-03-06 DW199614 EP0699211A4 1996-05-08 DW199643 NZ265837A 1997-09-22 DW199745 AU685805B 1998-01-29 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
PA	(USDA) US SEC OF AGRIC
ICAI	C08J5/18; C08L29/04; C08L5/06;
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.



27/29	@ WPI / 2017 Clarivate Analytics.

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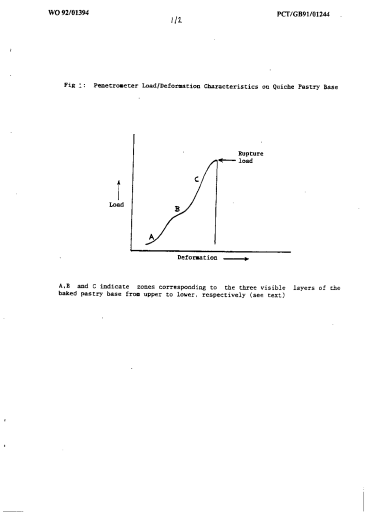
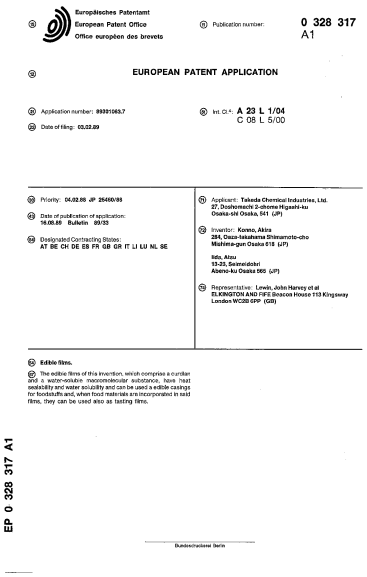
PN	WO9201394A 1992-02-06 DW199208 AU8221891A 1992-02-18 DW199222 GB2262245A 1993-06-16 DW199324 BR9106666A 1993-06-08 DW199327 EP0550445A1 1993-07-14 DW199328 JPH05508544A 1993-12-02 DW199402 AU644463B 1993-12-09 DW199405 GB2262245B 1994-03-30 DW199410 EP0550445B1 1995-06-28 DW199530 DE69110894E 1995-08-03 DW199536 JP3091487B2 2000-09-25 DW200051
TI	Moisture barrier film - comprises edible protein and edible polysaccharide and has coating of edible hydrophobic material on (portion) of surface
PA	(JOHJ) DEVRO LTD
ICAI	A21D13/00; A21D13/08; A23J3/00; A23L1/00; A23L3/00; A23P1/08; B32B9/00; C08J5/18; C08J7/04; F21S2/00; H05B33/02; H05B33/04; H05B33/10; H05B33/14;
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.



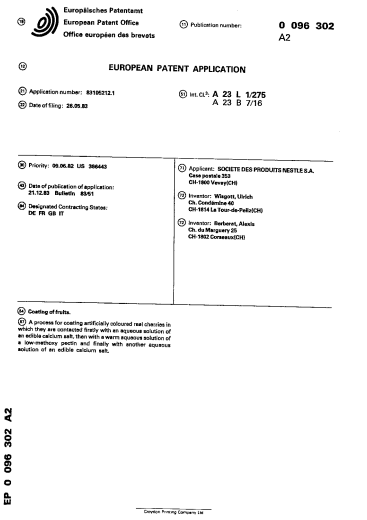
28/29	@ WPI / 2017 Clarivate Analytics.
PN	EP0328317A 1989-08-16 DW198933 JPH01289457A 1989-11-21 DW199001 CN1036967A 1989-11-08 DW199033
TI	Edible film of curdlan and macromolecular substance - used as water soluble heat sealable opt. flavoured transparent food films and casings
PA	(TAKE) TAKEDA CHEM IND LTD
ICAI	A23L1/00; A23L1/054; A23L1/22; C08B37/00; C08L1/00; C08L101/00; C08L3/00; C08L5/00;
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.

(Volver al Sumario)

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.


Europäisches Patentamt
European Patent Office
Office européen des brevets
Publication number: 0 328 317 A1
EUROPEAN PATENT APPLICATION
Int. Cl.⁴: A 23 L 1/04 C 08 L 5/00
Edible films.
EP 0 328 317 A1

29/29	@ WPI / 2017 Clarivate Analytics.
PN	EP0096302A 1983-12-21 DW198351 ZA8303758A 1984-01-16 DW198413 US4448794A 1984-05-15 DW198422 ES8404603A 1984-08-01 DW198439 CA1190083A 1985-07-09 DW198532 EP0096302B 1986-11-05 DW198645 DE3367317G 1986-12-11 DW198651
TI	Preventing colour migration from artificially dyed cherries - by coating with low methoxy pectin pptd. with calcium ions
PA	(NEST) SOC PROD NESTLE SA
ICAI	A23B7/16; A23L1/00; A23L1/275;
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.


Europäisches Patentamt
European Patent Office
Office européen des brevets
Publication number: 0 096 302 A2
EUROPEAN PATENT APPLICATION
Int. Cl.⁴: A 23 L 1/275 A 23 B 7/16
Coating of fruits.
EP 0 096 302 A2

(Volver al Sumario)

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PD	2013-01-30
TI	Galectin 3-[beta]-galactobiose interactions
AU	Gunning A P; Pin C; Morris V J
AUAF	Institute of Food Research, Norwich Research Park, Norwich NR4 7 UA
PUB	Carbohydrate Polymers 20130130 Elsevier Ltd gbr
LNKD	http://dx.doi.org/10.1016/j.carbpol.2012.08.104
IRN	ISSN 0144-8617 (print)
VOL	92
NR	1
PG	529 - 533
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 koff = 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.

2/12	@ NPL / EPO
AN	XP035070586
PD	2012-05-07
TI	Analysis of the neutral polysaccharide fraction of MCP and its inhibitory activity on galectin-3
AU	Xiaoge Gao; Yuan Zhi; Tao Zhang; Huiting Xue; Xiao Wang; Anthony D Foday; Guihua Tai; Yifa Zhou
PUB	Glycoconjugate Journal, 20120507 Springer New York LLC, US
LNKD	http://dx.doi.org/10.1007/s10719-012-9382-5
IRN	ISSN 1573-4986
VOL	29
NR	4
PG	159 - 165
AB	No hay resumen disponible

3/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV201200174763
TI	Bioactive galactans
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
AB	No hay resumen disponible

(Volver al Sumario)

4/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV201100689659
TI	Integrative medicine and the role of modified citrus pectin and poly botanicals in cancer prevention and treatment
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
AB	No hay resumen disponible

5/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV201100040914
TI	Calpain activation through galectin-3 inhibition sensitizes prostate cancer cells to cisplatin treatment
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	http://dx.doi.org/10.1038/cddis.2010.79
IRN	ISSN 2041-4889
VOL	1
PG	Article No.: e101
URL	www.nature.com/cddis
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

6/12	@ NPL / EPO
AN	XP055564312
PD	2007-08-01

(Volver al Sumario)

TI	Pectin induces apoptosis in human prostate cancer cells: correlation of apoptotic function with pectin structure
AU	Crystal L Jackson; Tina M Dreaden; Lisa K Theobald; Nhien M Tran; Tiffany L Beal; Manal Eid; Mu Yun Gao; Robert B Shirley; Mark T Stoffel; Vijay Kumar M; Debra Mohnen
PUB	GLYCOBIOLOGY, 20070801 Oxford University Press, US
LNKD	http://dx.doi.org/10.1093/glycob/cwm054
IRN	ISSN 0959-6658
VOL	17
NR	8
PG	805 - 819
AB	No hay resumen disponible

7/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV200700250411
TI	The health benefits of modified citrus pectin
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
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.

8/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV200510259749
TI	Modified citrus pectin and cancer.
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

(Volver al Sumario)

AB	No hay resumen disponible

9/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV200400388061
PN	
TI	Dietary supplement comprising colostrum and citrus pectin
IN	Gohlke Marcus B; Cockrum Richard H
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
URL	http://www.uspto.gov/web/menu/patdata.html
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.

10/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV200300042063
PN	
TI	Dietary supplement combining colostrum and lactoferrin in a mucosal delivery format
IN	Gohlke Marcus B; Cockrum Richard H
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
URL	http://www.uspto.gov/web/menu/patdata.html
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.

11/12	@ NPL / EPO
AN	XP055319887
PD	2002-12-18
TI	Inhibition of Human Cancer Cell Growth and Metastasis in Nude Mice by Oral Intake of Modified Citrus Pectin
AU	Nangia-Makker P; Hogan V; Honjo Y; Baccarini S; Tait L; Bresalier R; Raz A
PUB	JOURNAL OF THE NATIONAL CANCER INSTITUTE, 20021218 Oxford University Press, GB
LNKD	http://dx.doi.org/10.1093/jnci/94.24.1854
IRN	ISSN 0027-8874
VOL	94
NR	24
PG	1854 - 1862
AB	No hay resumen disponible

(Volver al Sumario)

12/12	@ BIOSIS / 2017 Clarivate Analytics.
AN	PREV200200423668
PN	
TI	Methods of use for dietary compositions comprising lactoferrin and colostrum
AUAF	12302 Astoria Blvd., Houston, TX, 77089, USA
IN	Gohlke Marcus B; Cockrum Richard H
PUB	Official Gazette of the United States Patent and Trademark Office Patents June 25, 2002
IRN	ISSN 0098-1133
VOL	1259
NR	4
URL	http://www.uspto.gov/web/menu/patdata.html
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.

(Volver al Sumario)