A PROCESS FOR THE OBTAINING A PREPARATION COUNTERACTING NEOPLASMS FROM ACIDIFIED, ALKALINE HYDROLYSATE FROM PEAT

Abstract

For the production of a preparation acting against neoplasms, which is particularly suitable for the control of neoplastic diseases in humans, the starting material used is an acidified, alkaline hydrolysate of peat having an ash content of 8 to 30%, a decomposition level of 30 to 70% and a pH of 3.5 to 7. The starting material, the acidified alkaline hydrolysate, is repeatedly subjected to alkaline and acidic hydrolysis. The product obtained in this way is extracted therefrom using hydrated ethanol, divided up using a mixture of ethanol and other organic solvents and chromatographed in columns, the retention of polysaccharides and certain mineral salts being guaranteed in the final product. Preferably, the selective removal of the excess of bases and acids is performed by ion exchange.

Classifications

- A61K35/10 Peat; Amber; Turf; Humus

DE2846482A1

Germany

Find Prior Art Similar

Other languages: German

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Worldwide applications

1977 *PL* 1978 ~~CH~~ ~~DE~~

Application DE19782846482 events

1978-10-25	Application filed by AKAD WROCLAWIU ROLNICZA
1979-04-26	Publication of DE2846482A1
1983-03-24	Application granted
1983-03-24	Publication of DE2846482C2
Status	Expired

Info: Non-patent citations (1), Cited by (5), Legal events, Similar documents, Priority and Related Applications

External links: Espacenet, Global Dossier, DPMA, Discuss

Claims (4)

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translated from German

A method for obtaining a preparation that counteracts neoplasms from acidified, alkaline hydrolyzate of peat Claims: 1. Process to obtain a preparation that counteracts neoplasms from acidified, alkaline Hydrolyzate of peat, which is especially useful for combating neoplasms in humans it is suitable that this is the starting material The acidic filtrate used is repeatedly hydrolyzed under alkaline conditions and that after the separation the filtrate recovered from the precipitate was acidified and concentrated again and then neutralized and evaporated to dryness, leaving the dry residue with hydrated Ethanol that the extract is extracted from excess ballast separated and with a mixture of ethanol and other organic solvents extracted and the aqueous solution obtained concentrated and in chromatography columns is divided. 2. The method according to claim 1, d a d u r c h g e -k e n n z e i c h n e t that as the starting material for the production of the hydrolyzate peat with 8 to 30 % ash content, 30 to 70% decomposition level and a pH of 3.5 to 7.0 is used. 3. Further execution of the method according to claim 1, d a d u r c it is noted that the selective removal of bases and acids is carried out by ion exchange. 4. The method according to claims 1 or 3, d a d u r c h g e k e n n z E i c h n e t that the conservation of polysaccharides and certain mineral salts is guaranteed in the end product.

Description

translated from German

A method for obtaining a neoplasm against

active preparation from acidified, alkaline hydrolyzate of Peat The subject of the invention is a method of obtaining a neoplasm counteracting preparation from acidified, alkaline hydrolyzate of peat, the is especially intended for the control of neoplasms in humans.

The extraction of such substances from peat, the neoplasms, is known counteract and in which the concentration of polysaccharides is very high (up to 95%) is. In the known method, pure and dried out peat is used Approx. 8% aqueous NaOH extracted cold for hours. The mixture obtained is filtered and the residue is extracted again with an aqueous NaOH until the pH of the total extract assumes a value of 2 when 4N HCl is used. Afterward becomes the whole centrifuged and the supernatant becomes a 48 hour underwent continuous dialysis under running water.

The dialysate is salted in a number of chromatography columns cleaned. The secreted product exhibits anti-neoplasmic activity in mice (Hayoshida, Takuya, Kumakura, Mikio: Anticancer preparations from peat; Chemical Abstract, 1974, Vol. 80, 41027 j.).

According to the invention, the acidic filtrate forming the starting product is which was obtained in a known way, namely by the hydrolysis of peat with an ash content of 8 to 30%, a decomposition level of 30 to 70% and a pH value of 3.5 to 7 hydrolyzed again and that after the removal of the precipitate recovered filtrate acidified again and concentrated, then neutralized and evaporated to dryness, the dry residue is then hydrated with Ethanol extracted. The extract obtained in this way is made up of excess ballast separated, concentrated and with a mixture of ethanol and other organic Solvents extracted; the separated water layer is then concentrated, centrifuged and divided into chromatography columns. This procedure ensures the content of polysaccharides and certain mineral salts in the end product.

The final preparation obtained according to the invention differs from that described in the prior art with regard to the chemical composition and on the experimentally confirmed strong activity qeqen neoplasms.

The preparation1 obtained is examined "in vitro" on lymphoid cells, Type SL 2, which had been taken from mice, pointed Activity at a Concentration of 0.5 train / ml. The mentioned preparation has been on animals for over 10 years been tested in terms of toxicity and counteracting the neoplasms Activity.

Transplantable ones were used in oncostatic examinations Crocker and Ehrlich type neoplasms. Dissolved under the action of the preparation the 'immovable' neoplasms are removed from the pathologically unchanged tissue and made it possible to carry out an operation. One posed neither acute still chronic toxicity noted.

Of the type of neoplasmic disease and the stage of development of the neoplasm depends on the application form of the preparation; it comes in the form of solutions Used orally or parenterally (.i.m.) as well as by means of compresses and as an ointment.

The peat preparation obtained with a counteracting neoplasm Activity does not have any negative side effects during the period of application, on the contrary one observes an improvement in the blood count as well as an increase in appetite and weight.

Example 1 1 kg air-dry peat is crushed and 8 1 0.1 up to 8% aqueous NaOH for 36 hours at room temperature with constant mixing extracted. The alkaline extract is centrifuged to remove the plant parts that have not been dismantled to remove, then acidified with hydrochloric acid to approx. pH 1 and over 12 hours ditched. The deposited precipitate is filtered and the clear filtrate is made with NaOH Made alkaline to pH = 9 and then filtered again.

The filtrate is acidified with hydrochloric acid and under reduced pressure concentrated to about 1/5 of the volume, neutralized with sodium hydroxide, up to Evaporated to dryness and extracted with hydrated ethanol.

The alcoholic-aqueous extract is made up of the lubricating and oil components and the inorganic salts and then concentrated until the salt separates out. After the precipitated salt has been filtered off, the filtrate is treated with a Mixture extracted from ethanol and other organic solvents. That further The inorganic salt which precipitates is filtered off and the aqueous filtrate is halved evaporated, then centrifuged and filtered.

The clear filtrate is after concentration in chromatography columns appropriately divided in order to separate the fractions counteracting the neoplasms.

The preparation obtained is a light brown to brown colored, hygroscopic, amorphous substance, the H20 content is approx. 10%, dissolves in water and is insoluble in organic solvents. Acid hydrolysis results in a positive one Reaction with reagents for sugar.

The IR spectrum is typical for polysaccharides. After burning at 7000C a residue of about 60 to 68% (metal oxides) is obtained. The color reaction of the preparation with ninhydrin is positive.

Example 2 1 kg of air-dry peat is crushed and with a aqueous NaOH solution as in Example 1 extracted. That clear alkaline The filtrate is neutralized on ion exchange columns up to pH = 7, the neutral one The water solution is acidified to approx. PH = 1 using hydrochloric acid and the precipitated one Precipitate filtered (see Example 1). The acidic filtrate is transferred to ion exchange columns neutralized, concentrated to about 500 ml, filtered and with a mixture of Ethanol and organic solvents extracted.

The further processing takes place as in example 1.

The preparation obtained has the same chemical composition and Properties as in Example 1.

The by-products have biological activity and can be used as Means with bacteriostatic and antiviral effects, as well as in soil culture as well as in plant and animal production.

Non-Patent Citations (1)

Title
Chemical Abstracts 80, 41027j (1974) *

* Cited by examiner, † Cited by third party

Cited By (5)

Publication number	Priority date	Publication date	Assignee	Title
WO1992016216A1 *	1991-03-16	1992-10-01	Torf Establishment	Peat-derived bioactive products and pharmaceutical and cosmetic compositions containing them
WO1994012197A1 *	1992-12-02	1994-06-09	Torf Establishment	Process for the manufacture of a preparation having immunomodulating activity and stimulating cytokine formation by extracting plants and plant residues
WO1994018957A2 *	1993-02-26	1994-09-01	Ina Levi	Use of active substances in the therapy of certain diseases, process for preparing a pharmaceutical composition for that purpose and pharmaceutical compositions thus prepared
US6267962B1	1990-12-21	2001-07-31	C-P Technology Limited Partnership	Compositions and methods of treatment using peat derivatives
Family To Family Citations				
DE4316347C1 *	1993-02-26	1994-08-18	Ina Dr Levi	Process for the preparation of a pharmaceutical preparation and use thereof for the treatment of certain diseases

* Cited by examiner, † Cited by third party, ‡ Family to family citation

Similar Documents

Publication	Publication Date	Title
DE2947646C2	1984-12-20	Substance with interferon-inducing activity, process for its preparation and its use
DE2846482A1	1979-04-26	A PROCESS FOR THE OBTAINING A PREPARATION COUNTERACTING NEOPLASMS FROM ACIDIFIED, ALKALINE HYDROLYSATE FROM PEAT

DE1617889B1	1971-01-21	Process for the production of an active substance for stimulating the function of the reticulo-endothelial system from a unicellular green alga
DE1518314C3	1975-01-09	Method of Isolating Bacitracin
DE654960C	1938-01-08	Process for the preparation of hydrogen-transferring co-enzymes
DE948735C	1956-09-06	Process for obtaining a therapeutically active substance from organisms of the classes Crustacea and Myriapoda
DE921281C	1954-12-13	Process for the preparation of a remedy for rheumatoid arthritis and burn, as well as general calming of the nerves
DE131496C		
DE1065133B	1959-09-10	Process for cleaning raw parotene obtained from saliva or salivary gland
DE661929C	1938-06-30	Process for enriching growth substances causing cell reproduction
DE565065C	1932-11-25	Process for the separate recovery of a hypertensive substance and a uterine muscle contracting substance from the posterior lobe of the pituitary gland
DE1037651B	1958-08-28	Process for the production of a therapeutically effective extract from the cement resin of the Apis mellifica
DE948158C	1956-08-30	Process for the preparation of zinc complex salts of tripeptides
DE736885C	1943-07-01	Process for processing residues from glycerine distillation
AT224807B	1962-12-10	Method for obtaining a new anti-tumor polysaccharide
DE129031C	1902-02-25	Process for the preparation of easily soluble in water, resistant alkali salts of the decomposition products resulting from the alkaline hydrolysis of the native protein
DE311074C		
DE966852C	1957-09-12	Process for purifying and fractionating dextrans
DE936205C	1955-12-07	Process for obtaining the coferment of carbonic anhydrase
DE1199923B	1965-09-02	Method for obtaining holotoxin
AT152396B	1938-01-25	Process for the preparation of durable therapeutic preparations from intestinal mucosa.
AT325783B	1975-11-10	PROCESS FOR SEPARATING THE GLYCOFRANGULIN COMPLEX FROM VEGETABLE RAW MATERIALS, IN PARTICULAR FROM THE DRIED BARK OF THE ROTARY TREE
DE829595C	1952-01-28	Process for the preparation of adenosine-5-triphosphoric acid
DE559143C	1932-09-16	Process for the separate recovery of posterior pituitary lobe hormone and anterior pituitary lobe hormone
DE1938437C3	1977-09-15	Process for the preparation of levorine sodium salt

Priority And Related Applications

Applications Claiming Priority (1)

Application	Filing date	Title
PL20176277A	1977-10-25	Method of obtaining an antineoplastic preparation from the acidified alkaline hydrolyzate from peat

Legal Events

Date	Code	Title	Description
1979-04-26	OAP	Request for examination filed	
1979-05-31	OD	Request for examination	
1983-03-24	D2	Grant after examination	
1983-09-22	8364	No opposition during term of opposition	
1985-11-07	8339	Ceased/non-payment of the annual fee	

Concepts

machine-extracted

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Name	Image	Sections	Count	Query match
Neoplasm		title,claims,abstract,description	16	0.000
preparation method		title,claims,abstract,description	15	0.000

peat	title,claims,abstract,description	14	0.000
method	title,claims,description	3	0.000
hydrolysate	title,abstract	3	0.000
ethanol	claims,abstract,description	18	0.000
mixture	claims,abstract,description	8	0.000
salts	claims,abstract,description	7	0.000
sodium chloride	claims,abstract,description	7	0.000
organic solvent	claims,abstract,description	6	0.000
glycans	claims,abstract,description	5	0.000
polysaccharide	claims,abstract,description	5	0.000
polysaccharide	claims,abstract,description	5	0.000
polysaccharides	claims,abstract,description	5	0.000
ion exchange	claims,abstract,description	4	0.000
decomposition reaction	claims,abstract,description	3	0.000
inorganic mineral	claims,abstract,description	3	0.000
manufacturing process	claims,abstract,description	3	0.000
mineral	claims,abstract,description	3	0.000
starting material	claims,abstract	4	0.000
acid	claims,abstract	2	0.000
acids	claims,abstract	2	0.000
filtrate	claims,description	11	0.000
precipitate	claims,description	5	0.000
chromatography analysis	claims,description	4	0.000
extract	claims,description	4	0.000
acidificating	claims,description	3	0.000
chemical reaction product	claims,description	2	0.000
aqueous solution	claims	1	0.000
separation method	claims	1	0.000
product	abstract,description	3	0.000
acid hydrolysis reaction	abstract,description	2	0.000
disease	abstract,description	2	0.000
alkaline hydrolysis reaction	abstract	1	0.000
final product	abstract	1	0.000
maintenance of location	abstract	1	0.000
neoplastic	abstract	1	0.000

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