

Seznam patentů

Kaplánek Robert , Jakubek Milan , Havlík Martin , Rak Jakub , Bříza Tomáš , Džubák Petr , Hajdúch Marián , Konečný Petr , Štěpánková Jana , Králová Jarmila , Král Vladimír

Title: Coffeine-8-hydrazones as novel cytostatics for the treatment of oncologic diseases

Publication Number: [CZ20140307A3](#)

Application Number: CZ2014307

Abstract: The present invention relates to caffeine-8-hydrazones of the general formula I, having substituted 2-hydroxyaryl, pyridine or pyrazine group. These substances exhibit cytostatic activity and can be therefore used for the preparation of therapeutics for the treatment of oncologic diseases.

Application Year/Month: 2014-05

Brynda Jiri , Cigler Petr , Gruner Bohumir , Maloy Rezacova Pavlina , Mader Pavel , Sicha Vaclav , Bakardjiev Mario , Holub Josef , Dzubak Petr , Hajduch Marian

Title: Carbonic anhydrase inhibitors and method of their production

Publication Number: [US20140303390A1](#)

Application Number: US14/352210

Abstract: Derivatives of boron cluster compounds of general formula I and their pharmaceutically acceptable salts and solvates, and their specific inhibition effect on the enzyme carbonic anhydrase IX, a protein overexpressed in cancer tissues. Methods of synthesis and the use of the novel derivatives. These inhibitors of human carbonic anhydrase IX can be used as active compounds of pharmaceuticals for diagnostics and/or therapy of cancer diseases.

Application Year/Month: 2012-10

Cited by Patents: CN105237558A | CN105237558B

Rejman Dominik , Pohl Radek , Bartunek Petr , Ribeiro Pombinho Antonio , Krasny Libor , Latal Tomas

Title: Lipophosphonoxins, method of their preparation and use

Publication Number: [EP2527351A1](#)

Application Number: EP2012169491

Abstract: The invention discloses lipophosphonoxins of general formula I, wherein R1 is (C8-C22)alkyl or hexadecyloxypropyl, tetradecyloxypropyl, tetradecyloxyethyl or hexadecyloxyethyl and R2 is uracil, thymine or cytosine, R3 is selected from group comprising compounds of general formula II and III, where R4 is H or CH₂OH, R5 is H or OH, R6 is H or OH, R7 is H or CH₂OH, R8 is H or CH₂OH, R9 is H or OH, R10 is H or OH, R11 is H or OH, R12 is H or CH₂OH. Described are also diastereomers and mixtures of diastereomers of compounds of general formula I as well as corresponding pharmaceutically acceptable salts and hydrates and also a suitable method of preparation of such compounds. All described compounds of general formula I can be used as antibacterial agents or as active

components of disinfectants and/or of selective in vitro growth media.

Application Year/Month: 2012-05

Cited by Patents: AU2017257061B2 | EP3448865B1 | WO2017186200A1

Ledvina Miroslav , Bystroň Tomáš , Effenberg Roman , Drož Ladislav , Havránek Miroslav , Sedláček Juraj , Mortet Vincent

Title: Electrochemical cell for determining bacterial drinking water contamination

Publication Number: [CZ33021U1](#)

Application Number: CZ201936206U

Application Year/Month: 2019-05

Seifert Daniel , Jelínek Pavel , Marešová Lenka , Sedláček Juraj , Lebeda Ondřej , Ráliš Jan , Holčák Pavel

Title: Screening container for solid-state target

Publication Number: [CZ29695U1](#)

Application Number: CZ201632560U

Application Year/Month: 2016-07

Seifert Daniel , Jelínek Pavel , Marešová Lenka , Sedláček Juraj , Lebeda Ondřej , Holčák Pavel

Title: Automated microfluid system

Publication Number: [CZ29648U1](#)

Application Number: CZ201531985U

Application Year/Month: 2015-12

Kotora Martin , Prchalova Eva , Adamski Jerzy , Moeller Gabriele , Stepanek Ondrej , Bartunek Petr , Sedlak David , Hajduch Marian , Dzubak Petr

Title: 15beta-substituted estrone derivatives as selective inhibitors of 17beta-hydroxysteoid-

Publication Number: [US20190330258A1](#)

Application Number: US16/305829

dehydrogenases, method of preparation and use thereof

Abstract: 15 β -substituted derivatives of estrone of general formula I wherein R1, R2, R3, R4, R5 are independently selected from the group consisting of: C1-C4 alkyl, C1-C4 alkoxy, C1-C4 halogenalkyl, halogen, COOR6 wherein R6 is C1-C4 alkyl; H, OH; optionally, R3, R4 and R5 are each formed by a hydrogen atom, while R1 and R2 together form an aryl group, preferably naphthyl, in which the aromatic ring in position C-15 can be mono-, di-, tri-, tetra- and penta-substituted with substituents R1-R5. Compounds of the invention may be used for diagnosis and possibly also for the treatment of estrogen-dependent diseases.

Application Year/Month: 2017-06

ROBERT KAPLÁNEK, TOMÁŠ BŘÍZA , MARTIN HAVLÍK, JAKUB RAK , ZDENĚK KEJÍK, PETR DŽUBÁK, MARIÁN HAJDÚCH, PETR KONEČNÝ , JANA ŠTĚPÁNKOVÁ, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL

Title: Dioxocyclobutenyl hydrazones and their anticancer activity

Publication Number: [CZ2014321A3](#)

Application Number: CZ2014321

Abstract: The present invention relates to a dioxocyclobutenyl hydrazones of the general formula I, having substituted 2-hydroxyaryl or 2-N-heteroaryl group. These substances exhibit cytostatic activity and can be therefore used for the preparation of therapeutics for the treatment of leukemia and tumor diseases.

Application Year/Month: 2014-05

DVORAK MICHAL , KRALOVA JARMILA , KRAL VLADIMIR

Title: Porphyrin derivatives

Publication Number: [CZ20013138A3](#)

Application Number: CZ20013138

Abstract: In the present invention, there are claimed novel derivatives of 5,15-bis(p-tolyl)porphyrin and 5,10,15,20-tetrakis(p-tolyl)porphyrin of the general formula I, in which the substituents Re1 through Re8 are identical or different and are selected from the group consisting of hydrogen, alkyl having one to eight carbon atoms; the substituents Re9 and Re10 are identical or different and are selected from the group consisting of hydrogen, alkyl, phenyl, substituted phenyl wherein the substituent is represented by methyl, amino, nitro, cyano, halo, methoxy, or hydroxy group, carboxyamido guanidinium; the substituents Re11 and Re12 are identical or different substituted phenyl groups in positions 2 or 3, 5, 6, and the substituents are selected from the group consisting of hydrogen, aryl, binaphthoyl, a halogen, a cyano group, a nitro group, carboxyl and methyl through octyl esters thereof; the substituent Re13 represents oxygen O or two hydrogen atoms Hi2; the substituents X and Y, which can be identical or different denote trialkylammonium group $(N(Re14))_3$, in which Re14 represents alkyl, a hydroxyalkyl group, a polyhydroxyalkyl group, an aminoalkyl group, a polyaminoalkyl group; further, X and Y represent an N-substituted pyridine group wherein the substituent is represented by methyl, amino, nitro, cyano, halo, methoxy or hydroxy group, or X and Y represent a guanidinium group $NH(CH=NHi2)NHRe15$, aminoguanidinium group $NHNH(CH=NHi2)NHRe15$, methylguanidinium group $CH_2NH(CH=NHi2)NHRe15$, and hydroxyethyl guanidinium group $OCH_2CH_2NH(CH=NHi2)NHRe15$ in which Re15 denotes hydrogen, alkyl, or X and Y denote a dialkylsulfonium group $S(Re16)_2$, in which Re16 represents alkyl, a or X and Y represent a trialkylphosphonium group $P(Re17)_3$, in which Re17 denotes alkyl. Further claimed is a process for preparing the above-described derivatives as well as their use for DNA and oligonucleotide transfer into primary cells of vertebrates to influence expression of selected genes.

Application Year/Month: 2001-08

Tůmová Magda , Dráber Petr , Dráber Marek

Title: A method of detecting specific microRNAs using template DNA and a template DNA molecule for use in this method

Publication Number: [CZ2016248A3](#)

Application Number: CZ2016248

Application Year/Month: 2016-04

BŘÍZA TOMÁŠ, KEJÍK ZDENĚK, HAVLÍK MARTIN, DOLENSKÝ BOHUMIL, KAPLÁNEK ROBERT, KRÁLOVÁ JARMILA, RIMPELOVÁ SILVIE, RUML TOMÁŠ, MARTÁSEK PAVEL, KRÁL VLADIMÍR

Title: Use of novel types of pentamethinium salts with expanded quinoxaline unit in antitumor therapy

Publication Number: [CZ20140213A3](#)

Application Number: CZ2014213

Abstract: Předmětem vynálezu jsou pentamethiniové sole s inkorporovanou expandovanou chinoxalinovou jednotkou obecného vzorce I, využitelné jako prostředek s cytostatickým účinkem pro nádorové buněčné linie a k potlačení růstu nádoru a pro přípravu prostředku pro značení mitochondrií.

Application Year/Month: 2014-04

MARTIN HAVLÍK, ROBERT KAPLÁNEK, BOHUMIL DOLENSKÝ, JAKUB RAK, TOMÁŠ BŘÍZA, PETR DŽUBÁK, MARIÁN HAJDÚCH, PETR KONEČNÝ, JANA ŠTĚPÁNKOVÁ, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL,

Title: Asymmetric Troger bases with hydrazone group and their use in the treatment of oncologic diseases

Publication Number: [CZ2014317A3](#)

Application Number: CZ2014317

Abstract: The present invention relates to asymmetric Troger bases having substituted 2-hydroxy(hetero)aryl group or having 2-N-heteroaryl group on an aryl radical in the b-portion and a naphthyl radical in the f-portion of the 1,5-methano-1,5-diazocine ring. These substances exhibit cytostatic activity and they can be therefore used in the preparation of medicaments intended for the treatment of oncologic diseases.

Application Year/Month: 2014-05

Pavelka Jaroslav, Libor Petr, Kumpoštová Dobromila, Šiklová Michaela

Title: A murine lymphocyte hybridoma

Publication Number: [CZ20150892A3](#)

Application Number: CZ2015892

Abstract: A murine lymphocyte hybridoma producing a monoclonal antibody against pollen surface antigens in the form of hazel pollen grains deposited on February 18, 2015 in the collection of Belgian coordinated collections of microorganisms under the designation of LMBP 11036CB. The monoclonal antibody is useful for detection of pollen of hazel, especially for the detection of hazel pollen with damaged and denatured proteins, e.g. macro-residues of the hazel in paleobotanical findings, and can serve as the basis for the generation of a series of monoclonal antibodies against different pollen species and their detection of various substrates.

Application Year/Month: 2015-12

KRÁL VLADIMÍR, KRÁLOVÁ JARMILA, MARTÁSEK PAVEL, BŘÍZA TOMÁŠ, KEJÍK ZDENĚK

Title: Use of polymethine salts as sensors for tumor markers

Publication Number: [CZ20130005A3](#)

Application Number: CZ20135

Abstract: The present invention relates to the use of polymethine salts of the general formula I for the preparation of optical sensors for determining tumor markers, further for the determination and recognition of sulfated analytes, for the determination of phosphates and saccharides, for diagnosing oncological diseases, and for the preparation of a medicament intended for the treatment of oncological diseases.

Application Year/Month: 2013-01

JAKUB RAK , ROBERT KAPLÁNEK, TEREZA ŠTULCOVÁ , PAVEL DRAŠAR, MARTIN HAVLÍK, TOMÁŠ BŘÍZA, PETR DŽUBÁK, MARIÁN HAJDÚCH, PETR KONEČNÝ , JANA ŠTĚPÁNKOVÁ, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL

Title: Cholyl hydrazones and their use in the treatment of tumor and leukemia diseases

Publication Number: [CZ2014305A3](#)

Application Number: CZ2014305

Abstract: The present invention relates to a colic acid hydrazones of the general formulae I through V, in which the meanings of the general substituents are indicated in the descriptive section. The conjugates consist of covalently linked biologically active hydrazone group that partially increases the bioavailability thereof and the balance being cholic acid residue. The substances of the present invention exhibit cytostatic activity and they can be therefore used for the preparation of therapeutics intended for the treatment of tumor and leukemia diseases.

Application Year/Month: 2014-05

HEJNAR JIŘÍ , PLACHÝ JIŘÍ , KUČEROVÁ DANA, REINIŠOVÁ MARKÉTA

Title: Polymorphisms in NHE1 sequence of domestic fowl associated with resistance or reduced sensitivity to ALV-J

Publication Number: [CZ20130046A3](#)

Application Number: CZ201346

Abstract: The invention relates to the area of veterinary virology, particularly sensitivity and resistance to infection of ALV-J in the domestic fowl and selected species of gallinaceous birds. DNA polymorphisms in the ECL1 region of the chNHE1 gene associated with resistance or reduced sensitivity to ALV-J have been identified, namely W38 deletion associated with the ALV-J resistant phenotype, and W38G or W38E substitution associated with a phenotype with reduced ALV-J sensitivity. In particular, the invention relates to an isolated DNA molecule encoding a mutant chNHE1 protein or a fragment thereof wherein the tryptophan at position 38 is deleted and further isolated DNA molecules encoding a mutant chNHE1 protein or fragment thereof wherein the tryptophan at position 38 is replaced by glycine or glutamate.

Application Year/Month: 2013-01

ROBERT KAPLÁNEK, TOMÁŠ BŘÍZA, MARTIN HAVLÍK, JAKUB RAK, ZDENĚK KEJÍK, PETR DŽUBÁK, MARIÁN HAJDÚCH,
PETR KONEČNÝ, JANA ŠTĚPÁNKOVÁ, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL

Title: Benzoisothiazole-1,1-dioxide-3-hydrazones and their use in anticancer therapy

Publication Number: [CZ2014322A3](#)

Application Number: CZ2014322

Abstract: The subject of the invention are new benzoisothiazole-1,1-dioxide-3-hydrazones of Formula I-V having a substituted 2-hydroxyaryl group, of general formula I and II, or having a 2-N (hetero)aryl group of general formula III to V. These substances have a cytostatic effect and can be used for the preparation of medicaments to be used in anticancer therapy.

Application Year/Month: 2014-05

ROBERT KAPLÁNEK, TOMÁŠ BŘÍZA, MARTIN HAVLÍK, JAKUB RAK, ZDENĚK KEJÍK, PETR DŽUBÁK, MARIÁN HAJDÚCH,
PETR KONEČNÝ, JANA ŠTĚPÁNKOVÁ, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL

Title: Benzothiazole- substituted cyclobut-3-ene-1, 2-dione-3-hydrazones and their use in the treatment of various types of leukemia and tumor diseases

Publication Number: [CZ2014306A3](#)

Application Number: CZ2014306

Abstract: In the present invention, there are disclosed benzothiazole- substituted cyclobut-3-ene-1, 2-dione-3-hydrazones of the general formula I-V having a substituted 2-hydroxyaryl group, of the general formulae I and II, or having 2-N-(hetero)aryl group of the general formula III-V, and pharmaceutically usable salts thereof. These compounds exhibit cytostatic activity and they can be therefore used in the preparation of therapeutics for the treatment of various types of leukemia and tumor diseases.

Application Year/Month: 2014-05

BARTŮNĚK PETR , KOŘINEK VLADIMIR, POMBINHO ANTÓNIO, TŮMOVÁ LUCIE

Title: Pharmaceutical composition comprising monensin for treating of diseases associated with deregulated wnt signaling pathway

Publication Number: [WO2015014329A1](#)

Application Number: PCT/CZ2014/000085

Abstract: The invention relates to novel biological activities of monensin, an antibiotic isolated from *Streptomyces cinnamomensis*. Monensin was identified, as potent Inhibitor of the canonical Wnt signalling pathway and its activity in various in vitro and in vivo assays was demonstrated. Particularly, the invention relates to pharmaceutical composition comprising monensin or its pharmaceutically acceptable salt for treating diseases associated with the deregulated Wnt signalling pathway, preferably intestinal diseases, more preferably familial adenomatous polyposis, colon cancer, rectal cancer and colorectal carcinoma.

Application Year/Month: 2014-07

DVORAK MICHAL, DVORAKOVA MARTA, KARAFIAT VIT, STURSA JAN, WERNER LUKAS, JANECKOVA LUCIE

Title: Phospholipid derivatives and their use as medicaments

Publication Number: [IN201937044153A](#)

Application Number: IN201937044153

Abstract: The present invention provides 1-acyl-lysophosphatidyl derivatives of general formula I (I) wherein R is C4 to C30 alifatic hydrocarbyl chain R1 is selected from H or C1 to C10 alkyl preferably C1 to C6 alkyl R2 is selected from H C10 to C30 acyl or C1 to C10 alkyl preferably C1 to C6 alkyl R3 is selected from H or C1 to C10 alkyl preferably C1 to C6 alkyl or R3 is not present. These derivatives are intended for the treatment of cancer in particular melanoma hepatocarcinoma or GIT carcinomas.

Application Year/Month: 2019-10

DVORAK Michal, DVORAKOVA Marta, KARAFIAT Vit, STURSA Jan, WERNER Lukas, JANECKOVA Lucie

Title: Phospholipid derivatives and their use as medicaments

Publication Number: [EP3606534A1](#)

Application Number: EP2018719029

Abstract: The present invention provides 1-acyl-lysophosphatidyl derivatives of general formula I, (I) wherein R is C4 to C30 alifatic hydrocarbyl chain, R1 is selected from H or C1 to C10 alkyl, preferably C1 to C6 alkyl, R2 is selected from H, C10 to C30 acyl or C1 to C10 alkyl, preferably C1 to C6 alkyl, R3 is selected from H or C1 to C10 alkyl, preferably C1 to C6 alkyl, or R3 is not present. These derivatives are intended for the treatment of cancer, in particular melanoma, hepatocarcinoma or GIT carcinomas.

Application Year/Month: 2018-03

VLADIMÍR KRÁL, TOMÁŠ BŘÍZA, ZDENĚK KEJÍK, JARMILA KRÁLOVÁ, SILVIE RIMPELOVÁ, TOMÁŠ RUML, PAVEL MARTÁSEK

Title: Use of polymethine salts as mitochondrial probes

Publication Number: [CZ2011782A3](#)

Application Number: CZ2011782

Abstract: In the present invention, there is disclosed the use of symmetric polymethine salts with gamma heteroaryl substitution of the general formulae I and II, where the meanings of the substituents are indicated in the description section, for the preparation of selective probes for labeling mitochondria in both live and dead cells as well as for labeling isolated mitochondria, too.

Application Year/Month: 2011-12

Issue Year/Month: -

ROBERT KAPLÁNEK, MARTIN HAVLÍK, JAKUB RAK, JARMILA KRÁLOVÁ, VLADIMÍR KRÁL

Title: Troger base derivatives and cytostatic properties thereof

Publication Number: [CZ2011681A3](#)

Application Number: CZ2011681

Abstract: The present invention relates to novel compounds based on Troger base (TB) derivatives having two hydrazone groups (TB-bishydrazones), having substituted 2-hydroxyaryl group or heteroaryl group of the general formula I, in which Y represents H, CH₃, CH₂CH₃, with the proviso that Z=N or C-OH and X=A=C, than R₁, R₂, R₃, R₄ denote H, OH, alkyl containing 1 to 3 carbon atoms, allyl, a halogen, -CH₂OH, -OCH₃, -OCH₂CH₃, -CF₃, -CN, -COOCH₃, -COOCH₂CH₃, -NO₂, -SCH₃, -N(CH₃)₂, -N(CH₂CH₃)₂, -NHCH₃, -NHCOCH₃, R₁, R₂ or R₂, R₃ or R₃, R₄ represent CH=CH-CH=CH, i.e. a condensed benzene nucleus, with the proviso that Y denotes 2-pyridyl, than Z=N, X=A=C, R₁, R₂, R₃, R₄ are as specified above, with the proviso that Y represents H, CH₃, CH₂CH₃, and Z=N, X=N and A=C, than R₁ and R₂ are as specified above and R₃ is not present and R₄ denotes H, OH, alkyl having 1 to 3 carbon atoms, allyl, a halogen, -CH₂OH, -OCH₃, -OCH₂CH₃, -CF₃, -CN, -COOCH₃, -COOCH₂CH₃, -NO₂, -SCH₃, -N(CH₃)₂, -N(CH₂CH₃)₂, -NHCH₃, -NHCOCH₃ with the proviso that Y=H, Z=C-OH, A=N and X=C, than R₁=CH₃, R₂ is not present, R₃=H and R₄=CH₂OH. These compounds exhibit cytostatic activity and can be therefore used in the preparation of therapeutics for the treatment of tumor diseases.

Application Year/Month: 2011-10

NOVAK PETR, SEDLAK DAVID, BARTUNEK PETR, KOTORA MARTIN

Title: Ligands of Estrogen Receptors alpha and beta, Method of Their Preparation, and Pharmaceuticals Comprising Them

Publication Number: [US20110118225A1](#)

Application Number: US12/990826

Pharmaceuticals Comprising Them

Abstract: The invention relates to novel ligands of the estrogen receptors α and β of general formula II, which are useful as an active substance of pharmaceuticals, for example pharmaceutical compositions useful for hormone replacement therapy, as well as for the treatment of tumors and inflammatory diseases. The invention also relates to a novel preparation method of these ligands comprising cyclotrimerization of ethynylestradiol with the appropriate diyne in an organic solvent. Further, the invention relates to pharmaceuticals comprising the novel compounds according to the invention.

Application Year/Month: 2009-05

GREKOV Igor, POMBINHO António, SÍMA Matyás, KOBETS Tetyana, BARTŮNEK Petr, LIPOLDOVÁ Marie

Title: Pharmaceutical composition comprising diphenyleneiodonium for treating diseases caused by the parasites belonging to the family trypanosomatidae

Publication Number: [US20160220508A1](#)

Application Number: US15/021211

Abstract: The invention relates to a new use of diphenyleneiodonium (DPI) as an active substance against parasites of the family Trypanosomatidae, in particular against parasites of the genus Leishmania and Trypanosoma.

Application Year/Month: 2014-09