AN ANTI-CARCINOGENIC ADJUVANT FORMULATION THAT FUNCTIONS BY SUPPRESSING G1/S PHASE SPECIFIC PROTEIN, CYCLINE D1 AND ANTI-APOPTOTIC BCL-XL PROTEIN EXPRESSION

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Field of Invention

The present invention herewith discloses an anti-carcinogenic adjuvant formulation developed to suppress G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression.

Background of the Related Technology

At present while it is known that the term Chemotherapy means “treatment with medication”, it is used more specifically to refer to a treatment where cancer drugs, working mainly on cancer cells, are used. Thus, the drugs used for such purposes are called “anti-cancer” drugs. The objective of the chemotherapy may vary with the type of the cancer under treatment. Main objective is to treat the cancer. Cancer is deemed to be treated once all traces of cancer cells are removed. Controlling cancer is accepted to be the process, where the spreading of cancer in general is prevented and its growth is slowed, and thus the cancer is put under control. Its main objective is to eliminate the symptoms developed with cancer. Certain chemotherapy treatments mainly concentrate on eliminating or reducing pain and similar symptoms, to improve the life quality of the patient. It may not be possible to get the desired benefit from the chemotherapy medication all the time. If it is not possible to destroy the cancer tumors by treatment or if it is too late in treatment, the cancer cells may spread to the whole body by blood vessels or lymphatic system. This will lead to a condition called metastasis.

In state of art technology, invention no "WO 1999/031140" , with title "Treatment with Anti-ErbB2 antibodies" and under classification number " C07K 16/32 " discloses methods for treatment of disorders distinguished by extreme expression of ErB2. More

specifically the referred invention discloses methods for treatment of cancer, which is suspected that the cancer is responsible from extreme expression of ErbB2 and also is related to using the invention in treatment of the cancer in combination with a chemo-therapy agent that is different from anthracycline, like epirubicin.

Again invention no “WO 1999/061444" , with title "Pyrimidines and Bicyclic 3,4-dihydropyrimidines as Cell Reproduction Inhibitors” and under classification number " C07D 487/04 " discloses methods for providing bicyclic heterocylics that are useful in treatment of diseases related to cell reproduction like cancer, restenosis as well as angiogenesis and atherosclerosis. We have invented a group of bicyclic compounds that are effective inhibitors of kinases dependent on cycline, kinases mediated by growth factor and kinases which are not receptors. These compounds can by synthesized easily and can be administered to the patient using various methods, including orally administered forms and have sufficient biological suitability for clinical use. The referred invention consists of the compound with formula (I) where Z is N or GH; G is N or CH; W is NH, S,SO or SO_2; R1 is phenyl and substituted phenyl; R2 is alkyl and cycloalkyl; R3 is alkyl and hydrogen; R8 and R9 are hydrogen and alkyl as well as pharmaceutically acceptable salts thereof. The referred invention is also related to providing a pharmaceutical formulation that contains the compound with Formula (I) combined with a pharmaceutically acceptable carrier, diluting agent or excipient.

Again invention no "EP1423105B1" , with title "Combinations of Other Agents Used Against DMXAA and Cancer" and under classification number “A61K 31/19 " discloses a synergistic combination formed with a compound selected from platinum compounds, vinca alkaloids, alkylation agents, anthracyclines, topoisomerase I inhibitors, anti-metabolites and topoisomerase II inhibitors, which have act against 5,6-dimethylxanthenone-4-acetic acid (DMXAA) and tumors. The referred invention specifically discloses methods for using such combinations in treatment of cancer and pharmaceutical compounds that contain the combinations referred herewith.

To conclude it has become inevitable to proceed with a development in the area of the related technology, considering the inadequacy of the existing solutions and the need for an anti-carcinogenic adjuvant formulation that suppresses G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression.

Objective of the Invention

To overcome the disadvantages experienced in state of art technology;

- One objective of the invention is to suppress G1/S phase-specific protein expression.
- One other objective of the invention is to suppress cycline D1 function and expression.
- One other objective of the invention is to suppress anti-apoptopic Bcl-xl protein function.
- One other objective of the invention is to, increase Bax expression.

The present invention which is aimed to achieve the above-mentioned advantages, is an anti-carcinogenic adjuvant formulation that suppresses G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression and is a formulation that is obtained by combination of the compositions selected in a single form or in combinations from a group containing; 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione, 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7diol.

Structural and characteristic properties as well as all the advantages of the invention presented herewith will be clearly understood with the detailed description provided below and thus the evaluation regarding the present invention should be based on the detailed description presented herewith.

Detailed Description of the Invention

The present invention herewith discloses an anti-carcinogenic adjuvant formulation developed to suppress G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression. Referred formulation suppresses G1/S phase-specific protein

expression, suppresses cycline D1 function and expression, suppresses anti-apoptopic Bcl-xl protein function and increases Bax expression.

The formulation of the invention presented herewith contains; 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione, 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7diol .

The referred formulation is formed by mixing the above-mentioned components at below percentages by weight;

- 22-78% of 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione,
- 78-22% of 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7-diol.

Components given above are obtained by combining the components from the above-mentioned group at the given range of weight ratios in a single form or in combinations thereof.

The present invention at the same time discloses using the above-referred formulation to suppress G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression and manufacturing it for such purpose.

CLAIMS

1. An anti-carcinogenic adjuvant formulation that suppresses G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression, and which consists of combining the components selected from the group; 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione, 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7-diol in a single form or in combinations thereof.

2. The formulation of Claim 1 which is characterized by containing 22-78% of 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione by weight.

3. The formulation of Claim 1 which is characterized by containing 78-22% of 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7-diol by weight.

4. Using the compositions obtained by selecting singly or in combination of components from the group of; 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(dihydroxyethyl)oxane-3,5,7-trione, 1H-cyclopenta[a]phenylanthroyl-4-yl]oxy]-6-(dimethoxyethyl)oxane-3-yl]oxy-8-(trihydroxymethyl)oxane-3,5,7-diol from any one as given in Claims 2-3 in manufacturing an anti-carcinogenic adjuvant formulation suppresses G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression

SUMMARY

AN ANTI-CARCINOGENIC ADJUVANT FORMULATION THAT FUNCTIONS BY SUPPRESSING G1/S PHASE SPECIFIC PROTEIN, CYCLINE D1 AND ANTI-APOPTOTIC BCL-XL PROTEIN EXPRESSION

The present invention herewith discloses an anti-carcinogenic adjuvant formulation developed to suppress G1/S phase-specific protein, cycline D1 and anti-apoptotic Bcl-xl protein expression. Referred formulation suppresses G1/S phase-specific protein expression, suppresses cycline D1 function and expression, suppresses anti-apoptopic Bcl-xl protein function and increases Bax expression

There are no illustrations.