**Description**

**A COMPOSITION COMPRISING ANTI-CARCINOGENIC SİMPLORASEMOSİT DERIVATIVES THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING PHOSPHATIDYL 3-KINASE EXPRESSION**

**Technical Field**

The invention relates to a composition comprising anti-carcinogenic symploracemoside derivatives formed for suppressing the expression of phosphatidyl 3-kinase.

**State of the Art**

In chemistry and biochemistry, kinase is a type of enzyme that transfers, by way of phosphorylation, the phosphate groups from the donor molecules with high energy, such as ATP, to the specific substrates. Kinases are a part of a larger family called the phosphotransferases. Tyrosine kinase is an enzyme that belongs to the family of protein kinases enabling the protein phosphorylation. Since the type of amino acid that undergoes phosphorylation is tyrosine, this enzyme was given the name tyrosine kinase.

Tyrosine kinase may transfer phosphate groups from ATP to the tyrosine residues in the proteins. By means of the tyrosine kinase activity, autophosphorylation of the tyrosine residues present in the beta sub unit takes place. This is the first step of the insulin receptor activation. The activation of insulin receptor causes the phosphorylation in the serine-threonine group of a series of proteins that are associated with the receptor and are called the insulin receptor substrate (IRS), which in turn activates the signal pathways that determine the effect to be exhibited by insulin. There are two main pathways, namely the phosphatidylinositol 3 kinase (PI 3 kinase) pathway and mitogen-activated protein kinase (MAPK) pathway. PI 3 kinase pathway is responsible for the cascade system related to the cellular ingestion of the glucose, while MAPK pathway is responsible for the expression of the genes associated with the protein synthesis.

The IRS proteins activated in the pathway responsible for the transport of glucose contact PI 3 kinase, which is an intracellular enzyme, to enable activation. The activated PI3 kinase phosphorylates the phosphatidylinositol (PI) substrates, thereby enabling the formation of PIP, PIP2 and PIP3. These molecules bind to the phosphatidylinositol-dependent kinase (PDK1) enzyme to activate said enzyme where PDK1 enables the phosphorylation of AKT, which is also known as protein kinase B. The activated AKT enables the translocation of the glucose transporter protein called GLUT-4 that is present in cytosol towards the plasma membrane. In this way, GLUT-4, which translocates to the plasma membrane, allows for the influx of the glucose to the cell.

According to the state of the art, the invention no. EP1689391B1 with classification "A61K 31/427" entitled "5-phenyl-4-methyl-thiazol-2-yl-amine derivatives as inhibitors of phosphatidylinositol 3 kinase enzymes (pi3) for the treatment of inflammatory airway diseases" relates to the organic compounds characterized by being 1-[2-(2-ethyl-2H-tetrazol-5-yl)-ethyl]-3-[5-(3-fluoro-4-methanesulfonyl-phenyl)-4-methyl-thiazole-2-yl]-urea in free or salt form, their preparation and their use as pharmaceuticals.

Further, the invention no. EP1622897B1 entitled "Inhibitors of phosphatidylinositol 3-kinase" relates to organic compounds comprising phosphatidylinositol 3-kinase inhibitors, their preparation and their use as pharmaceuticals especially in the treatment of the respiratory tract diseases.

Further, the invention no. EP2261223B1 entitled "Pyrimidine derivatives used as pi-3 kinase inhibitors" relates to new phosphatidylinositol (PI) 3-kinase inhibitor compounds and their pharmaceutically acceptable salts alone or in combination with at least one additional therapeutic agent, and compositions thereof with a pharmaceutically acceptable carrier, and uses thereof in the prophylaxis or treatment of a number of diseases, in particular, those characterized by the abnormal activity of growth factors, receptor tyrosine kinases, protein serine/threonine kinases, G protein coupled receptors and phospholipid kinases and phosphatases.

As a result, the presence of the need for a composition for suppressing the expression of phosphatidyl 3-kinase and the inadequacy of the existing solutions have made it necessary to perform an improvement in the relevant art.

**Object of the Invention**

In order to eliminate the disadvantages of the state of the art, an object of the invention is to suppress phosphatidyl 3-kinase.

Another object of the invention is to suppress DNA ligase.

Another object of the invention is to suppress helicase.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing the expression of phosphatidyl 3-kinase, said composition being obtained by the components selected from the group comprising 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside, 4-​fluoro-​2-diphenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside that are used individually or in combinations.

The structural and characteristic features and all the advantages of the invention will become more clearly understood from the detailed description provided below and therefore, the evaluation must be made taking this detailed description into consideration.

**Detailed Description of the Invention**

The invention is a composition comprising anti-carcinogenic symploracemoside derivatives formed for suppressing the expression of phosphatidyl 3-kinase. The composition according to the invention enables the suppression of phosphatidyl 3-kinase, the suppression of DNA ligase and the suppression of helicase.

The composition according to the invention contains 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside, 4-​fluoro-​2-di​phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside.

Said composition is obtained by a mixture of the aforesaid components according to the following ratios by weight:

1-99% 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside,

99-1% 4-​fluoro-​2-diphenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside.

The composition is obtained from the aforesaid components selected from the aforesaid group and used according to the mentioned weight ratio ranges individually or in combinations.

Said invention also encompasses the use of said composition for suppressing the expression of phosphatidyl 3-kinase and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing the expression of phosphatidyl 3-kinase, said composition being obtained by the components selected from the group comprising 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside, 4-​fluoro-​2-diphenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 1-99% by weight 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside.
3. A composition according to Claim 1 characterized in that it comprises 99-1% by weight 4-​fluoro-​2-di​phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside.
4. Use of the components according to Claims 1 to 3 obtained individually or in combinations selected from the group consisting of 5-​fluoro-​3-phenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propyl]-​4(3H)-​symploracemoside, 4-​fluoro-​2-diphenyl-​2-​[(1S)-​1-​(9H-​purine-​6-​aminophenyl)propionyl]-​2(4H)-​symploracemoside for the manufacture of a composition for suppressing the expression of phosphatidyl 3-kinase.

**ABSTRACT**

**A COMPOSITION COMPRISING ANTI-CARCINOGENIC SİMPLORASEMOSİT DERIVATIVES THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING PHOSPHATIDYL 3-KINASE EXPRESSION**

The invention relates to a composition comprising anti-carcinogenic symploracemoside derivatives formed for suppressing the expression of phosphatidyl 3-kinase.

No figure.