**Description**

**A COMPOSITION FOR THE TREATMENT OF IMMUNODEFICIENCY**

**Technical Field**

The invention relates to a composition formed for the treatment of immunodeficiency.

**State of the Art**

Immunodeficiency, or immune deficiency, is the condition of complete absence or incompatibility of an immune system having the capability of resisting the infectious diseases.

According to the state of the art, the invention no. WO 2000/027828 with classification “C07D 251/18” entitled “2,4-disubstituted triazine derivatives with anti hiv activity” concerns the use of the compounds of formula (I), the N-oxides, the pharmaceutically acceptable addition salts, quaternary amines and the stereochemically isomeric forms thereof, wherein L, R1, R2, n and -a1=a2-a3=a4- are as described in the specification, for the manufacture of a medicine for the treatment of subjects suffering from HIV (Human Immunodeficiency Virus) infection.

Further, the invention no. EP1363900B1 entitled “Isoindole-imide compounds, compositions and uses thereof” relates to isoindole-imide compounds and pharmaceutically acceptable salts, hydrates, solvates, clathrates, enantiomers, diastereomers, racemates, or mixtures of stereoisomers thereof, pharmaceutical compositions comprising these isoindole-imide compounds, and methods for reducing the level of cytokines and their precursors in mammals. In particular, the invention pertains to isoindole-imide compounds that are potent inhibitors of the production of the TNF-α in mammals. The isoindole-imides described herein are useful for treating or preventing diseases or disorders in mammals, for example, cancers, such as solid tumors and blood-born tumors; heart disease, such as congestive heart failure; osteoporosis; and genetic, inflammatory, allergic; and autoimmune diseases.

Further, the invention no. PCT7/RU2010/000529 entitled “The new stable polyethylene glycol conjugate of interferon alpha, represented by one positional isomer” is related to the pharmaceutical industry and medicine, in particular, to new PEG-interferon derivatives and the discovery of a new functionally active, highly stable conjugate of interferon to polyethylene glycol with an activity of interferon alpha, with reduced immunogenicity, with prolonged biological effects and improved pharmacokinetic parameters of general formula (I) where n - integral values from 227 to 10 000, so that the molecular weight of PEG is about 10 000 - 40 000 Da; m - integer > 4; IFN- natural or recombinant polypeptide having the activity of IFN-alpha. Also, the invention is related to drugs containing the declared conjugate of the formula (I), pharmaceutical compositions containing PEG-IFN conjugate and therapeutically acceptable excipients suitable for treatment of viral infections and cancer, as well as diseases associated with primary or secondary immunodeficiency. The invention is related to the use of conjugate of formula (I) in medicinal products, which have antiviral, antiproliferative and immunomodulatory activity, to approaches for prevention and/or treatment of diseases associated with primary or secondary immunodeficiency that include administration of therapeutically effective amount of conjugate of formula (I), and to the container with such pharmaceutical composition.

As a result, the presence of the need for a composition for treating immunodeficiency 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 support the production of B lymphocytes.

Another object of the invention is to support the expression of interleukin-2.

Another object of the invention is to support the expression of interleukin-10.

In order to achieve the aforesaid advantages, the invention is a composition for the treatment of immunodeficiency, said composition being obtained by the components selected from the group comprising 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate, 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate, 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate, 7-desmethyl-dioscin-ethyl-ester 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 for the treatment of immunodeficiency. With the following formulation, said composition supports the production of T lymphocytes, supports the production of B lymphocytes, supports the expression of interleukin-2 and supports the expression of interleukin-10.

The composition according to the invention contains 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate, 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate, 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate, 7-desmethyl-dioscin-ethyl-ester.

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

15-23% 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate,

26-41% 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate,

41-12% 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate,

18-24% 7-desmethyl-dioscin-ethyl-ester

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 treating immunodeficiency and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for the treatment of immunodeficiency, said composition being obtained by the components selected from the group comprising 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate, 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate, 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate, 7-desmethyl-dioscin-ethyl-ester that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 15-23% by weight 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate.
3. A composition according to Claim 1 characterized in that it comprises 26-41% by weight 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate.
4. A composition according to Claim 1 characterized in that it comprises 41-12% by weight 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate.
5. A composition according to Claim 1 characterized in that it comprises 18-24% by weight 7-desmethyl-dioscin-ethyl-ester.
6. Use of the components according to Claims 1 to 5 obtained individually or in combinations from the group consisting of 3,4,5-pentamethoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-hydroxyphenyl)prop-2-enoate, 3,4,5-methoxy-6-hydroxyloxan-2-yl]dioxyoxan-3-yl](E)-3-(3,4-methoxyphenyl)prop-4-enoate, 3,5,7-pentamethoxy-6-hydroxyloxan-(3,4-hydroxyphenyl)prop-2-enoate, 7-desmethyl-dioscin-ethyl-ester **for the manufacture of a composition for treating immunodeficiency**.

**ABSTRACT**

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The invention relates to a composition formed for the treatment of immunodeficiency.

No figure.