**Description**

**A COMPOSITION COMPRISING SYNTHETIC COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING DNA LIGASE**

**Technical Field**

The invention relates to a composition formed for suppressing DNA ligase.

**State of the Art**

In molecular biology, DNA ligase is a special type of ligase ([EC](http://tr.wikipedia.org/wiki/EC_numaras%C4%B1) [6.5.1.1](http://www.expasy.org/cgi-bin/nicezyme.pl?6.5.1.1)) that joins two DNA molecules end to end. DNA ligase plays a role in [DNA repair and DNA duplication. It also plays roles in the crossover in the meiotic division in eukaryotes and the recombination processes enabling the diversity of the immune system in the mammals.](http://tr.wikipedia.org/wiki/DNA_tamiri) DNA ligase enzyme is used in the recombinant DNA applications in the molecular biology laboratories. DNA ligase forms a phosphodiester bond between 3’ hydroxyl end of a DNA molecule and 5’ phosphate end of another.

Hemagglutinin is a glycoprotein present in the envelope of the influenza virus. It enables the virus to adhere to the cell. The influenza vaccines were developed against these molecules. The viruses carrying only the h1, h2, h3 types of the hemagglutinin antigen are known to cause the influenza disease and secretions in human. Esterase is a hydrolase type enzyme that enables the esters to undergo chemical reaction with one water molecule to produce one acid and one alcohol molecule from these. There are different esterase types with various substrate specificities, protein structures and biological functions.

According to the state of the art, the invention no. EP2175881B1 entitled "Intradermal influenza vaccine" relates to virosome-based influenza vaccines for the manufacture of medicaments that are administered intradermally in humans. The invention provides (trivalent) compositions comprising low doses of hemagglutinin (HA) antigen in a virosomal preparation that fulfill the immune response standards with respect to seroconversion rates, GMT-fold increase and protection rates, for use in vaccination set-ups.

As a result, the presence of the need for a composition for suppressing DNA ligase 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 enable the suppression of DNA ligase.

Another object of the invention is to enable the suppression of ribonucleotide reductase.

Another object of the invention is to enable the suppression of reverse transcriptase.

Another object of the invention is to enable the suppression of hemagglutinin esterase.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing DNA ligase, said composition being obtained by the components selected from the group comprising 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside, 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-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 formed for suppressing DNA ligase. The composition according to the invention contains 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside, 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-ester.

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

1-99% 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside,

99-1% 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-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 suppressing DNA ligase and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing DNA ligase, said composition being obtained by the components selected from the group comprising 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside, 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-ester that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 1-99% by weight 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside.
3. A composition according to Claim 1 characterized in that it comprises 99-1% by weight 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-ester.
4. Use of the components according to Claims 1 to 3 obtained individually or in combinations selected from the group consisting of 1,​4,​5,​6,​7,​8-​hexafluoro-​4-​(2-​dihydroxyphenyl)-​7-​(2-​dimethoxyphenyl)-​2-​methyl-​5-​oxo-​3-​picroretoside, 1,​4,​5,​6,​7,​8-​pentahydro-​4-​(3-​hydroxymethyl)-​7-​(2-​ethoxyphenyl)-​2-​dimethyl-​5-​oxo-​4-​picroretoside-2methoxyethyl-ester for the manufacture of a composition for suppressing DNA ligase.

**ABSTRACT**

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The invention relates to a composition formed for suppressing DNA ligase.

No figure.