**Description**

**A COMPOSITION COMPRISING ANTI-VIRAL COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING NEUROAMINIDASE**

**Technical Field**

The invention relates to a composition comprising the anti-viral components formed for suppressing neuroaminidase.

**State of the Art**

Neuroaminidase is the antigenic structure that enables the viruses such as influenza to spread from the main cell to the other tissues. In the literature, there are 9 types of neuroaminidase. These are shown briefly as n1, n2 ... n9.

According to the state of the art, the invention no. WO 1999/054299 with classification "C07D 409/04" entitled "Pyrrolidines as inhibitors of neuroaminidases" discloses compounds of formula (I) which are useful for inhibiting neuraminidases from disease-causing microorganisms, especially, influenza neuraminidase. Also disclosed are compositions and methods for preventing and treating diseases caused by microorganisms having a neuraminidase, processes for preparing the compounds and synthetic intermediates used in these processes.

Further, the invention no. EP1317559B1 entitled "DNA transfection system for the generation of infectious negative strand RNA virus" is based on the development of a dual promoter system (preferably a RNA pol I-pol II system) for the efficient intracellular synthesis of viral RNA. The resultant minimal plasmid-based system may be used to synthesize any RNA virus, preferably viruses with a negative single stranded RNA genome. The viral genome of the system is produced when the plasmids of the system are introduced into a suitable host cell. One application of the system is production of attenuated, reassortant influenza viruses for use as antigens in vaccines. The reassortant viruses generated by cotransfection of plasmids may comprise genes encoding the surface glycoproteins hemagglutinin and neuraminidase from an influenza virus currently infecting the population and the internal genes from an attenuated influenza virus. An advantageous property of the present invention is its versatility; the system may be quickly and easily adapted to synthesize an attenuated version of any RNA virus. Attenuated or inactivated RNA viruses produced by the present invention may be administered to a patient in need of vaccination by any of several routes including intranasally or intramuscularly.

Further, the invention no. EP1274713B1 entitled "Anti-viral pyrimidine nucleoside analogues" pertains to a compound having the formula (I) wherein Ar is an, optionally substituted, aromatic ring system, the aromatic ring system comprising one six-membered aromatic ring or two fused six-membered aromatic rings; R8 and R9 are each selected from hydrogen, alkyl, cycloalkyl, halogens, amino, alkylamino, nitro, cyano, alkyloxy, aryloxy, thiol, alkylthiol, arylthiol and aryl; Q is selected from O, S and CY2; X is selected from O, NH, S, N-alkyl, (CH2)m and CY2; Z is selected from O, NH, S, N-alkyl; U'' is H and U' is selected from H and CH2T, or U' and U'' are joined so as to form a ring moiety including Q selected from (a) and (b); wherein the other variables are as described the specification, with the proviso that when T is OAc and T' and T'' are present and are H, Ar is not 4-(2-benzoxazolyl)phenyl. These compounds exhibit anti-viral activity against the varicella zoster virus for instance.

As a result, the presence of the need for a composition for suppressing neuroaminidase 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 neuroaminidase.

Another object of the invention is to suppress RNA helicase.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing neuroaminidase, said composition being obtained by the components selected from the group comprising 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin and 2,​2'-​[[dihydro-​2-​(4-coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin 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 the anti-viral components formed for suppressing neuroaminidase. Said composition enables the suppression of neuroaminidase and the suppression of RNA helicase.

The composition according to the invention contains 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin and 2,​2'-​[[dihydro-​2-​(4-​coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin.

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

1-99% 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin,

99-1% 2,​2'-​[[dihydro-​2-​(4-coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin.

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 neuroaminidase and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing neuroaminidase, said composition being obtained by the components selected from the group comprising 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin and 2,​2'-​[[dihydro-​2-​(4-coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 1-99% by weight 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin.
3. A composition according to Claim 1 characterized in that it comprises 99-1% by weight 2,​2'-​[[dihydro-​2-​(4-coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin.
4. Use of the components according to Claims 1 to 3 obtained individually or in combinations selected from the group consisting of 2,​2'-​[[dihydro-​2-​(4-cafeoyl)-​1,​3(2H,​4H)-​octadienyl]bis(methylene)]bis(N,​N-​dimethyl-​sorinin and 2,​2'-​[[dihydro-​2-​(4-coumaroyl)-​1,​3(2H,​4H)-monolaroyl]bis(diethylene)]bis(N,​N-​dimethyl-​sorinin for the manufacture of a composition for suppressing neuroaminidase.

**ABSTRACT**

**A COMPOSITION COMPRISING ANTI-VIRAL COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING NEUROAMINIDASE**

The invention relates to a composition comprising the anti-viral components formed for suppressing neuroaminidase.

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