**Description**

**A COMPOSITION COMPRISING COMPONENTS THAT EXHIBIT ANTI-CARCINOGENIC ACTION FORMED FOR SUPPRESSING H3K27 METHYLTRANSFERASE**

**Technical Field**

The invention relates to a composition comprising the components that exhibit anti-carcinogenic action formed for suppressing H3K27 methyltransferase.

**State of the Art**

Histone methyltransferases (HMT) are the enzymes that add to the lysine or arginine amino acids in the structure of the histone proteins the methyl group they obtain from the cofactor S-adenosyl methionine. This process referred to as the histone methylation is an epigenetic modification. The amino acid, to which between 1-3 methyl groups may be added, is named along with the prefix of methyl-, dimethyl- or trimethyl- according to the number of methyl groups it carries; e.g. dimethyl lysine. Also, catechol-O-methyltransferase (COMT; [2.1.1.6](http://www.expasy.org/cgi-bin/nicezyme.pl?2.1.1.6%7CEC)) is an enzyme that plays a role in the metabolism of catecholamines. Dopamine, adrenaline, noradrenaline may be given as the examples of catecholamines. Catechol-O-methyltransferase takes part in the inactivation of the neurotransmitters. COMT is an intracellular enzyme available in the postsynaptic neurons.

The COMT enzyme is encoded in the human by a gene localized in 22q11.2 [[1]](http://tr.wikipedia.org/wiki/Katekol-O-metiltransferaz#cite_note-1). The functional polymorphism in the COMT gene causes the alteration of the activity of the COMT enzyme. COMT gene polymorphism is known to be effective in the pathogenesis of diseases such schizophrenia, bipolar disorder, obsessive compulsive disorder, migraine, and aggressive and antisocial behaviors.

It is a substance that prevents the development of cancer or inhibits the tumor growth. According to the state of the art, the invention no. EP2307002B1 with classification "A61K 31/245" entitled "Combinations of sapacitabine or cndac with dna methyltransferase inhibitors such as decitabine and procaine” relates to a pharmaceutical combination suitable for the treatment of cancer and other proliferative disorders.

As a result, the presence of the need for a composition for suppressing H3K27 methyltransferase 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 histone H3 lysine 27 methyltransferase.

Another object of the invention is to enable an increase in p21 expression.

Another object of the invention is to enable an increase in p27 expression.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing H3K27 methyltransferase, said composition being obtained by the components selected from the group comprising N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide, N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-carboxamide 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 components that exhibit anti-carcinogenic action formed for suppressing H3K27 methyltransferase. The composition according to the invention enables the suppression of histone H3 lysine 27 methyltransferase, an increase in p21 expression and an increase in p27 expression.

The composition according to the invention contains N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide, N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-carboxamide.

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

1-99% N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide,

99-1% N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-carboxamide.

The composition is obtained from the aforesaid components that exhibit anti-carcinogenic action 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 H3K27 methyltransferase and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing H3K27 methyltransferase, said composition being obtained by the components that exhibit anti-carcinogenic action selected from the group comprising N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide, N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-carboxamide that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 1-99% by weight N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide.
3. A composition according to Claim 1 characterized in that it comprises 99-1% by weight N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-​cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-​carboxamide.
4. Use of the components exhibiting anti-carcinogenic action according to Claims 1 to 3 obtained individually or in combinations selected from the group consisting of N-​[(2,​2-​dihydro-​6-​trimethyl-​7-​oxo-​4-​propionyl-​3-​pyridinyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(2-​phenylethyl)-​1-​laroyl]-​3-​1H-ramnosyl-​4-​carboxamide, N-​[(1,​2-​dihydro-​4-​dimethyl-​2-​oxo-​4-cafeoyl-​3-coumaroyl)methyl]-​1-​(1-​methylethyl)-​6-​[6-​[4-​(1-​methylethyl)-​1-​propionyl]-​3-​1H-fluoro-​4-carboxamide for the manufacture of a composition for suppressing H3K27 methyltransferase.

**ABSTRACT**

**A COMPOSITION COMPRISING COMPONENTS THAT EXHIBIT ANTI-CARCINOGENIC ACTION FORMED FOR SUPPRESSING H3K27 METHYLTRANSFERASE**

The invention relates to a composition formed for suppressing H3K27 methyltransferase.

No figure.