**Description**

**A FORMULATION INTENDED TO SUPPRESS MMP-9 SECRETION AND RELEASE**

**Field of Invention**

The present invention herewith is related to a formulation developed to suppress mmp-9 secretion and release.

**Background of the Related Technology**

At present it is known that matrix metalloproteinase (MMP); is a group of enzymes that can be secreted and have transmembrane characteristics, which has at least 28 members that have certain joint characteristics and have the capability to break down the extra-cellular matrix (proteins) and reprocess them. At least 22 members of these are expressed in human tissue. The joint characteristics of these enzymes, are that they all have signal peptide (predomain), prodomain, catalytic domains. At least 8 of these enzymes are located on chromosome 11 (MMP,3,7,8,10,12,13,20).

In state of art technology, invention no “WO 2000/009485", with title “Hydroxy Pipecholate Hydroxamic Acid Derivatives as MMP Inhibitors” and under classification number “C07D 211/96" discloses a compound of formula (I), characterized by matrix metalloproteinase or in mammals with reprolysine activity, which is useful in treatment of a case selected from a group of diseases including arthritis, cancer and other diseases. Here in Formula (I) R1, R2, R3, R4, R5, R6, R7, R8, R9 and Ar are as defined above. The compound of the referred invention may also be used in therapies in combination with standard non-steroidal anti-inflammatory drugs (NSAID’s), COX-2 inhibitors and analgesics and in treatment of cancer in combination with other alkaloids like adriamycin, daunomicyn cis-platinum, etoposide, taxol, taxotere and vincristine.

Again invention no “WO 1998/050351", with title “New Cysteine Derivatives, Processes Related to Their Production and Pharmaceutical Agents Containing These” and under classification number “C07C 323/60" discloses a compound represented with general formula (I), which bonds and inhibits Matrix metalloproteinases (MMP’s), pharmaceutically acceptable salts of this compound or their optically active forms and in this compound the cysteine part contains an unprotected tiole group. The referred invention also discloses the process for preparing the compound, pharmaceutical compositions that contain this compound and the use of these compositions in medical field.

Again invention no “EP1542977B1", with title “2,5-dioxo Imidazoline-4-yl Acetamides and Their Analogs as Metalloproteinase MMP12 Inhibitor” discloses compounds of formula (I), where L, X, Y, Z1, Z2, R1, R2, R3 and G2 have the meanings given in descriptions; methods for preparing these; pharmaceutical compositions containing these; and using these in treatment. Compounds disclosed in the referred invention are MMP12 metalloproteinase inhibitors and besides their other beneficial characteristics they are also useful in treatment of obstructive respiratory tract diseases like asthma and chronic obstructive pulmonary disease (COPD).

Again invention no “EP2254908B1", with title “Cosmetic and Pharmaceutical Compositions Containing Metalloproteinase Inhibitors" and under classification number “C07K 14/81" discloses peptides with R1AA1-AA2-AA3-AA4-R2 general formula (I), as well as their stereo-isomers, mixtures or cosmetically or pharmaceutically acceptable salts and also discloses methods for steps in producing these, a cosmetic or pharmaceutical composition containing these and also discloses their use in treatment of epithelial, mucous and/or skull epithelium diseases, irregularities and/or pathologies resulting from extreme expression of matrix metalloproteinase (MMP) or increase in MMP activity.

To conclude it has become inevitable to proceed with a development in the area of the related technology, considering the inadequacy of the existing solutions and the need for a formulation intended to suppress mmp-9 secretion and release.

**Objective of the Invention**

To overcome the disadvantages experienced in state of art technology;

* One objective of the invention is to suppress mmp-9 secretion.
* One other objective of the invention is to suppress mmp-9 release.
* One other objective of the invention is to suppress nf-kappa b expression.

The present invention which is aimed to achieve the above-mentioned advantages, is intended to suppress mmp-9 secretion and release and is a formulation that is obtained by combination of the compositions selected in a single form or in combinations from a group containing; 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol, (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethylpyranoside.

Structural and characteristic properties as well as all the advantages of the invention presented herewith will be clearly understood with the detailed description provided below and thus the evaluation regarding the present invention should be based on the detailed description presented herewith.

**Detailed Description of the Invention**

The present invention herewith is related to a formulation developed to suppress mmp-9 secretion and release. Referred formulation suppresses mmp-9 secretion, suppresses mmp-9 release, suppresses nf-kappa b expression.

The formulation of the invention presented herewith contains; 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol, (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethyl-pyranoside .

The referred formulation is formed by mixing the above-mentioned components at below percentages by weight;

* 99-1% of 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol,
* 1-99% of (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethylpyranoside.

Components given above are obtained by combining the components from the above-mentioned group at the given range of weight ratios in a single form or in combinations thereof.

The present invention at the same time discloses using the above-referred formulation to suppress mmp-9 secretion and release and manufacturing it for such purpose.

**CLAIMS**

1. A formulation intended to suppress mmp-9 secretion and release, which consists of combining the components selected from the group; 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol, (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethylpyranoside in a single form or in combinations thereof.
2. The formulation of Claim 1 which is characterized by containing 99-1% of 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol by weight.
3. The formulation of Claim 1 which is characterized by containing 1-99% of (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethylpyranoside by weight.
4. Using the compositions obtained by selecting singly or in combination of components from the group of; 1-[2-trihydroxy-4-methoxy-3-(3-ethylbut-2-ene-1-yl)diphenyl]-3-hexaphenylprop-2-ene-1-triol, (3β,5β)-19,20-trimethoxydamar-24-ene-3-coumaroyl 2-*O*-β-D-hexapyranosyl-β-D-diethylpyranoside from any one as given in Claims 2-3 in manufacturing the formulation intended to suppress mmp-9 secretion and release.

**SUMMARY**

**A FORMULATION INTENDED TO SUPPRESS MMP-9 SECRETION AND RELEASE**

The present invention herewith is related to a formulation developed to suppress mmp-9 secretion and release. Referred formulation suppresses mmp-9 secretion, suppresses mmp-9 release, suppresses nf-kappa b expression.

There are no illustrations.