**Description**

**A COMPOSITION COMPRISING LIPOLYTIC COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING MONOCYTE CHEMOATTRACTANT PROTEIN-1**

**Technical Field**

The invention relates to a composition comprising lipolytic components formed for suppressing monocyte chemoattractant protein-1.

**State of the Art**

LDL receptor-related protein 1 (used also as LRP1 as the abbreviation of LDL receptor-related protein 1; also known by the names alpha-2 macroglobulin receptor, apoE receptor) is a protein encoded by the LRP1 gene in human. LRP1 is a receptor present in the cell membrane and performs the receptor-mediated endocytosis. It is known to interact with many proteins, it therefore has diverse functions.

According to the state of the art, the invention no. WO 1999/007351 with classification “A61K 31/00” entitled “Chemical compositions” concerns the use of compounds of formula (I), and their pharmaceutically acceptable salts or in vivo hydrolysable esters, in the treatment of diseases or conditions mediated by monocyte chemoattractant protein-1 (MCP-1) wherein Z, X, T, A, R1, R2, p and q are as defined in the specification. Certain of the components of formula (I) are novel and are provided, together with pharmaceutical compositions thereof, as further features of the invention.

Further, the invention no. WO 2000/046196 entitled “Indole derivatives and their uses MCP-1 antagonists” describes and claims a compound of formula (I) wherein R1 is hydrogen, halo or methoxy; R2 is hydrogen, halo, methyl, ethyl or methoxy; R3 is carboxy, tetrazolyl, or -CONHSO2R4 where R4 is methyl, ethyl, phenyl, 2,5-dimethylisoxazolyl or trifluoromethyl; T is -CH2- or -SO2-; and ring A is 3-chlorophenyl, 4-chlorophenyl, 3-trifluoromethylphenyl, 3,4-dichlorophenyl, 3,4-difluorophenyl, 3-fluoro-4-chlorophenyl, 3-chloro-4-fluorophenyl or 2,3-dichloropyrid-5-yl; or a pharmaceutically acceptable salt or prodrug thereof, as well as pharmaceutical compositions containing them. These compounds and compositions are useful in the treatment of disease mediated by monocyte chemoattractant protein-1 or RANTES (Regulated Upon Activation, Normal T-cell Expressed and Secreted), such as inflammatory disease.

Further, the invention no. EP1383757B1 entitled “Antagonists of MCP-1 function and methods of use thereof” relates to chemical compounds Ia, IIa and IIIa, pharmaceutical compositions comprising said compounds, uses of said compounds and compositions, methods of treatment employing said compounds and compositions, and processes for preparing said compounds. Specifically, this invention relates to novel compounds which are antagonists of Monocyte Chemoattractant Protein-1 (MCP-1) function and are useful in the prevention or treatment of chronic or acute inflammatory or autoimmune diseases, especially those associated with aberrant lymphocyte or monocyte accumulation such as arthritis, asthma, atherosclerosis, diabetic nephropathy, inflammatory bowel disease, Crohn's disease, multiple sclerosis, nephritis, pancreatitis, pulmonary fibrosis, psoriasis, restenosis, and transplant rejection.

As a result, the presence of the need for a composition for suppressing monocyte chemoattractant protein-1 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 MCP-1 expression.

Another object of the invention is to enable an increase in GLUT4 translocation.

Another object of the invention is to enable an increase in B3 adrenergic receptor mRNA expression in the white fatty tissue.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing monocyte chemoattractant protein-1, said composition being obtained by the components selected from the group comprising alpha-methyl-protospinol, 11-oxo-protobiocide, 7-beta-picroretine-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 comprising lipolytic components formed for suppressing monocyte chemoattractant protein-1. Said composition enables the suppression of MCP-1 expression, enables an increase in GLUT4 translocation, and enables an increase in B3 adrenergic receptor mRNA expression in the white fatty tissue.

The composition according to the invention contains alpha-methyl-protospinol, 11-oxo-protobiocide, 7-beta-picroretine-ethyl-ester.

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

10-42% alpha-methyl-protospinol,

22-26% 11-oxo-protobiocide,

68-32% 7-beta-picroretine-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 suppressing monocyte chemoattractant protein-1 and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing monocyte chemoattractant protein-1, said composition being obtained by the components selected from the group comprising alpha-methyl-protospinol, 11-oxo-protobiocide, 7-beta-picroretine-ethyl-ester that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 10-42% by weight alpha-methyl-protospinol.
3. A composition according to Claim 1 characterized in that it comprises 22-26% by weight 11-oxo-protobiocide.
4. A composition according to Claim 1 characterized in that it comprises 68-32% by weight 7-beta-picroretine-ethyl-ester.
5. Use of the components according to Claims 1 to 4 obtained individually or in combinations selected from the group consisting of alpha-methyl-protospinol, 11-oxo-protobiocide, 7-beta-picroretine-ethyl-ester for the manufacture of a composition for suppressing monocyte chemoattractant protein-1.

**ABSTRACT**

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