**Description**

**A COMPOSITION COMPRISING SYNTHETIC ANTI-BACTERIAL COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING EPOXIDE HYDROLASE**

**Technical Field**

The invention relates to a composition comprising the synthetic anti-bacterial components formed for suppressing epoxide hydrolase.

**State of the Art**

Epoxide hydrolase is a microsomal enzyme that is mostly present in the liver. According to the state of the art, the invention no. EP1338596B1 with classification "C07D 495/08" entitled "Processes for the preparation of carbapenem-type antibacterial agents" relates to processes for the preparation of carbapenem-type antibacterial agents having a 1-alkylpyrrolidine structure which exhibit excellent antibacterial activity, to 5-alkyl-2-thia-5-azabicyclo[2.2.1]heptan-3-ones or salts thereof which are useful as synthetic intermediates, and to processes for the preparation thereof.

Further, the invention no. EP2097400B1 entitled "Fused substituted aminopyrrolidine derivative" provides a quinolone synthetic antibacterial agent having excellent properties as a medicine, which has strong antibacterial activity not only to Gram-negative bacteria but also to Gram-positive cocci that have low sensitivity to quinolone antibacterial agents, and which exhibits high safety and excellent pharmacokinetics; specifically, a quinolone derivative of the formula (I) wherein substituents R6 and R7 taken together with the carbon atoms to which they are bonded form a cyclic structure which is a five- or six-membered ring and which may contain an oxygen atom as a ring constituent atom, the cyclic structure forming a 5-4, 5-5, or 5-6 fused bicyclic pyrrolidinyl substituent, the substituent being bonded to a quinolone mother skeleton Q containing a pyridobenzoxazine structure.

Further, the invention no. EP1882689B1 entitled "Tri- or tetra-substituted-3-aminopyrrolidine derivatives" relates to a quinolone synthetic antibacterial drug which is useful as a drug for human, animals, or fish, or as antibacterial preservatives.

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

Another object of the invention is to enable the suppression of peptidoglycan hydrolase.

In order to achieve the aforesaid advantages, the invention is a composition for suppressing epoxide hydrolase, said composition being obtained by the components selected from the group comprising (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester, (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-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 the synthetic anti-bacterial components formed for suppressing epoxide hydrolase. Said invention enables the suppression of epoxide hydrolase and the suppression of peptidoglycan hydrolase.

The composition according to the invention contains (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester, (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-ester.

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

1-99% (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester,

99-1% (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-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 epoxide hydrolase and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for suppressing epoxide hydrolase, said composition being obtained by the components selected from the group comprising (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester, (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-ester that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 1-99% by weight (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester.
3. A composition according to Claim 1 characterized in that it comprises 99-1% by weight (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-ester.
4. Use of the components according to Claims 1 to 3 obtained individually or in combinations selected from the group consisting of (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​17S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrafluoro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​16,​28,​29-​pentamethyl-symplocomoside-ethyl-ester, (1S,​2'R,​4E,​5'R,​6R,​6'S,​7S,​8R,​10S,​11S,​12R,​14S,​15R,​16S,​18E,​20E,​22S,​25R,​28R,​29S)-​22-​ethyl-​3',​4',​5',​6'-​tetrahydro-​7,​11,​14,​15-​tetrahydroxy-​6'-​[(1Z)-​2-​hydroxy-​1-​propen-​1-​yl]-​5',​6,​8,​10,​12,​14,​18,​28,​29-​oxoethyl-symplocomoside-phenyl-ester for the manufacture of a composition for suppressing epoxide hydrolase.

**ABSTRACT**

**A COMPOSITION COMPRISING SYNTHETIC ANTI-BACTERIAL COMPONENTS THAT EXHIBIT THE CHARACTERISTIC OF SUPPRESSING EPOXIDE HYDROLASE**

The invention relates to a composition comprising the synthetic anti-bacterial components formed for suppressing epoxide hydrolase.

No figure.