

Abstract

RNA inhibitor for inhibiting LPA gene expression and use thereof

Provided is an RNA inhibitor for inhibiting LPA gene expression or a pharmaceutically acceptable salt thereof. The RNA inhibitor is formed by base pairing of a sense strand and an antisense strand having a chain length of 15-30, and the chain length is preferably 19-23; at least 85% of bases of the sense strand and the antisense strand are complementary to each other; -OH at position 2' of some or all of nucleotide sugar groups of the sense strand and/or the antisense strand is substituted with fluorine or methoxy; and phosphate bonds among three adjacent nucleotides of at least one of terminuses of the sense strand and/or antisense strand can be thioated. The structure of the RNA inhibitor may also contain ligand structures 5'MVIP and 3'MVIP. The RNA inhibitor provided in the present application interferes with the translation template function of the LPA mRNA, continuously and efficiently inhibits LPA gene expression, and can be used for treating and/or preventing diseases related to the horizontal increase of LP(a).

Figure 11