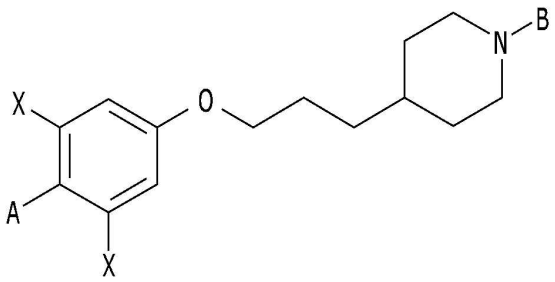
CLAIMS

1. A pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease, comprising:

a compound represented by a following chemical Formula 1, pharmaceutically acceptable salts thereof, optical isomers thereof, hydrates thereof, solvates thereof or mixtures thereof; and

elafibranor, evogliptin, sitagliptin, firsocostat, obeticholic acid or cenicriviroc:

[Formula 1]

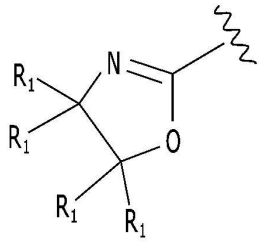


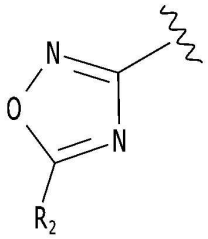
wherein in above Formula 1,

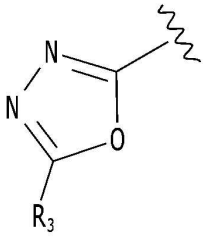
A is an oxadiazole group, in which above A is substituted with a C1-C6 straight or branched chain alkyl group;

B is a pyrimidine group, in which above B is substituted with a C1-C6 straight or branched chain alkyl group; and

X is F.

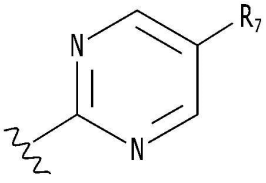
2. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein above A is 

, 

, or 

, and

R_2 and R_3 are each independently a C1-C6 straight or branched chain alkyl group.

3. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein above B is 

, and

R_7 is a C1-C6 straight or branched chain alkyl group.

4. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein the compound represented by above formula 1 is 3-(4-(3-(1-(5-ethylpyrimidin-2-yl)piperidin-4-yl)propoxy)-2,6-difluorophenyl)-5-isopropyl-1,2,4-oxadiazole.

5. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein the nonalcoholic fatty liver disease is selected from the group consisting of simple fatty liver, nonalcoholic steatohepatitis, liver fibrosis and cirrhosis.

6. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein the pharmaceutical composition inhibits deposition of triglycerides in liver tissues.

7. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein the pharmaceutical composition inhibits occurrence of inflammation in liver tissues.

8. The pharmaceutical composition for use in preventing or treating nonalcoholic fatty liver disease according to claim 1, wherein the pharmaceutical composition inhibits fibrosis of liver tissues.

9. Use of a pharmaceutical composition, comprising:

the compound represented by the chemical Formula 1 according to claim 1, pharmaceutically acceptable salts thereof, optical isomers thereof, hydrates thereof, solvates thereof, or mixtures thereof; and

elafibranor, evogliptin, sitagliptin, firsocostat, obeticholic acid or cenicriviroc as an active ingredient in the manufacture of a medicament for preventing or treating nonalcoholic fatty liver disease.