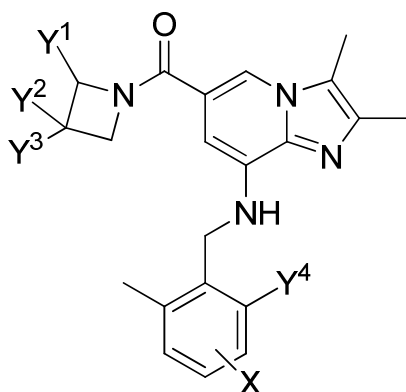


CLAIMS

1. An imidazo[1,2-*a*]pyridine compound represented by the following formula 1 or a pharmaceutically acceptable salt thereof:

Formula 1



wherein

Y^1 , Y^2 and Y^3 are each independently H, halogen, a C_1 - C_6 straight chain alkyl unsubstituted or substituted with R^1 or hydroxy;

R^1 is hydroxy;

Y^4 is H, C_1 - C_6 straight chain alkyl, or C_1 - C_6 alkoxy; and

X is H or halogen.

2. The imidazo[1,2-*a*]pyridine compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein

Y^1 is H or a C_1 - C_3 straight chain alkyl substituted with R^1 ;

Y^2 and Y^3 are each independently H, F, a C_1 - C_3 straight chain alkyl unsubstituted or substituted with R^1 or hydroxy;

R^1 is hydroxy;

Y^4 is H, C_1 - C_3 straight chain alkyl, or C_1 - C_3 alkoxy; and

X is H, F, or Cl.

3. The imidazo[1,2-*a*]pyridine compound or the pharmaceutically acceptable salt thereof according to claim 2, wherein

Y¹ is H;

Y² and Y³ are each independently H, F, a C₁-C₂ straight chain alkyl unsubstituted or substituted with R¹, or hydroxy;

R¹ is hydroxy;

Y⁴ is H or C₁-C₂ straight chain alkyl; and

X is H or F.

4. The imidazo[1,2-*a*]pyridine compound or the pharmaceutically acceptable salt thereof according to claim 3, wherein

Y¹ is H;

Y² and Y³ are each independently H, F, methyl, hydroxymethyl, or hydroxy;

Y⁴ is H or methyl; and

X is H or F.

5. The imidazo[1,2-*a*]pyridine compound or the pharmaceutically acceptable salt thereof according to claim 1, wherein the compound represented by formula 1 is selected from the group consisting of the following compounds:

1) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;

6) azetidin-1-yl{8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;

7) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-fluoroazetidin-1-yl)methanone;

8) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-methylazetidin-1-yl)methanone;

9) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxy-3-methylazetidin-1-yl)methanone;

11) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}[3-(hydroxymethyl)azetidin-1-yl]methanone;

17) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo [1,2-*a*]pyridin-6-yl}[2-(hydroxymethyl)azetidin-1-yl]methanone;

- 20) {8-[(2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}[3-(2-hydroxyethyl)azetidin-1-yl]methanone;
- 23) {2,3-dimethyl-8-[(2-methylbenzyl)amino]imidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;
- 24) {8-[(5-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;
- 25) (3-hydroxyazetidin-1-yl){8-[(2-methoxy-6-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;
- 26) [3-(hydroxymethyl)azetidin-1-yl]{8-[(2-methoxy-6-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;
- 27) {8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;
- 28) azetidin-1-yl{8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;
- 29) {8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-fluoroazetidin-1-yl)methanone;
- 30) {8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-methylazetidin-1-yl)methanone;
- 31) {8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxy-3-methylazetidine-1-yl)methanone;
- 33) {8-[(4-fluoro-2-methylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-(hydroxymethyl)azetidin-1-yl)methanone;
- 34) {8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;
- 35) azetidin-1-yl{8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;
- 36) {8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-fluoroazetidin-1-yl)methanone;
- 37) {8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-methylazetidin-1-yl)methanone;
- 38) {8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-

hydroxy-3-methylazetidin-1-yl)methanone;

39) {8-[(4-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}[3-(hydroxymethyl)azetidin-1-yl]methanone;

41) {8-[(3-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;

42) azetidin-1-yl{8-[(3-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;

43) {8-[(3-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-fluoroazetidin-1-yl)methanone;

44) {8-[(3-fluoro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}[3-(hydroxymethyl)azetidin-1-yl]methanone;

45) azetidin-1-yl{8-[(3-chloro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}methanone;

46) {8-[(3-chloro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-hydroxyazetidin-1-yl)methanone;

47) {8-[(3-chloro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}(3-fluoroazetidin-1-yl)methanone; and

48) {8-[(3-chloro-2,6-dimethylbenzyl)amino]-2,3-dimethylimidazo[1,2-*a*]pyridin-6-yl}[3-(hydroxymethyl)azetidin-1-yl]methanone.

6. A pharmaceutical composition for preventing or treating a disease caused by excessive secretion of gastric acid, the composition containing, as an active ingredient, an imidazo[1,2-*a*]pyridine compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 5.

7. The pharmaceutical composition of claim 6, wherein the disease caused by excessive secretion of gastric acid is a gastrointestinal inflammatory disease or a gastric acid-related disease.

8. The pharmaceutical composition of claim 7, wherein the gastrointestinal inflammatory disease or the gastric acid-related disease is selected from the group consisting of

peptic ulcer, gastric and duodenal ulcer, nonsteroidal anti-inflammatory drug (NSAID)-induced ulcer, *Helicobacter pylori* infection, functional indigestion, Zollinger-Ellison syndrome, gastritis, gastroesophageal reflux disease (GERD), and nonerosive reflux disease (NERD).

9. Use of an imidazo[1,2-*a*]pyridine compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 5 in the manufacture of a medicament for treatment of a disease caused by excessive secretion of gastric acid.

10. A pharmaceutical composition, comprising an imidazo[1,2-*a*]pyridine compound or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 5.