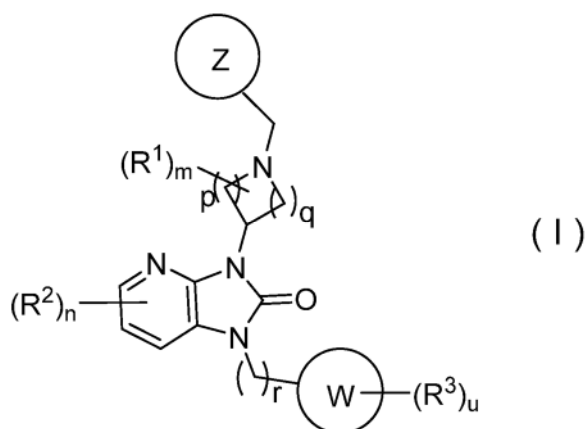


CLAIMS

~~Claim 1~~

1. A compound represented by the formula (I):

5 [Chem.1]

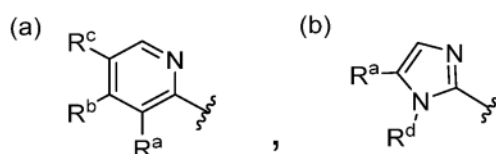


wherein

ring W is C_{6-10} aryl, 5- or 6-membered heteroaryl, 9- or 10-membered heteroaryl, C_{3-8} cycloalkyl or 3- to 8-membered heterocycloalkyl;

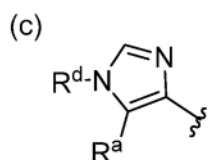
10 ring Z is a group selected from the group consisting of following (a) to (c):

[Chem.2]



and

[Chem.3]



15

wherein

R^a , R^b and R^c are each independently a hydrogen atom, a halogen atom, C_{1-6} alkyl, cyano,

hydroxy or carboxy; and

R^d is a hydrogen atom or C_{1-6} alkyl;

R^1 is a hydrogen atom, a halogen atom, C_{1-6} alkyl, ~~cyano, hydroxy or carboxy~~, wherein when m is 2 or 3, two or more R^1 s may be different from each other;

5 R^2 is a hydrogen atom, ~~a halogen atom~~, C_{1-6} alkyl, halo C_{1-6} alkyl, C_{1-6} alkoxy, hydroxy, - CO_2R^4 or $-CONR^5R^{5'}$, wherein when n is 2 or 3, two or more R^2 s may be different from each other;

R^4 is a hydrogen atom ~~or C_{1-6} alkyl~~; and

10 R^5 and $R^{5'}$ are each independently a hydrogen atom, C_{1-6} alkyl, carboxy C_{1-6} alkyl, ~~hydroxy C_{1-6} alkyl, halo C_{1-6} alkyl, C_{3-8} cycloalkyl~~ or 3- to 8-membered heterocycloalkyl;

R^3 is a hydrogen atom, a halogen atom, C_{1-6} alkyl, halo C_{1-6} alkyl, C_{1-6} alkoxy, halo C_{1-6} alkoxy, C_{2-6} alkenyl, ~~C_{2-6} alkynyl~~, C_{1-6} alkylsulfanyl, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, hydroxy, cyano, nitro, $-NR^6R^{6'}$, $-CO_2R^7$, $-CONR^8R^{8'}$ or the following group A, wherein when u is 2 or 3, two or more R^3 s may be different from each other;

15 R^6 and $R^{6'}$ are each independently ~~a hydrogen atom or~~ C_{1-6} alkyl;

R^7 is a hydrogen atom or C_{1-6} alkyl;

R^8 and $R^{8'}$ are each independently a hydrogen atom, ~~C_{1-6} alkyl, or~~ carboxy C_{1-6} alkyl, ~~hydroxy C_{1-6} alkyl, halo C_{1-6} alkyl, C_{3-8} cycloalkyl~~ or 3- to 8-membered heterocycloalkyl;

group A is a group selected from the group consisting of following (a) to (h):

20 (a) C_{6-10} aryl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,

(b) 5- or 6-membered heteroaryl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,

(c) C_{6-10} aryl C_{1-6} alkyl which is unsubstituted or substituted with 1 to 3 groups selected from
25 substituent group B,

(d) C_{6-10} aryloxy which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,

~~(e) 5- or 6-membered heteroaryl C₁₋₆ alkyl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,~~

~~(f) 5- or 6-membered heteroaryloxy which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,~~

5 ~~(eg)~~ C₃₋₈ cycloalkyl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B, and

~~(fh)~~ 3- to 8-membered heterocycloalkyl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B,

wherein substituent group B is a group consisting of a halogen atom, C₁₋₆ alkyl, halo C₁₋₆

10 alkyl, C₁₋₆ alkoxy, halo C₁₋₆ alkoxy, hydroxy, cyano, ~~NR⁹R^{9'}~~, ~~NR⁹SO₂R¹⁰~~, ~~-CO₂R¹⁰~~ and ~~-CONR¹¹R^{11'}~~;

wherein R⁹ ~~and R^{9'}~~ ~~are each independently~~ is a hydrogen atom ~~or C₁₋₆ alkyl~~;

R¹⁰ is a hydrogen atom or C₁₋₆ alkyl; and

R¹¹ and R^{11'} are each independently a hydrogen atom, C₁₋₆ alkyl, ~~carboxy C₁₋₆ alkyl, hydroxy~~

15 ~~C₁₋₆ alkyl, halo C₁₋₆ alkyl, C₃₋₈ cycloalkyl or 3- to 8-membered heterocycloalkyl~~;

m, n and u are each independently an integer number 1 to 3;

p and q are each independently 1 or 2; and

~~r is an integer number 0 to 6~~ or 1;

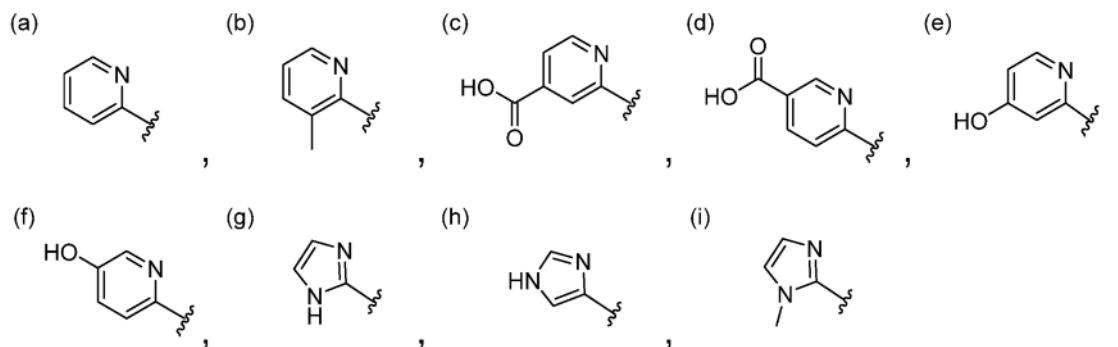
or a pharmaceutically acceptable salt thereof.

20

~~Claim 2~~

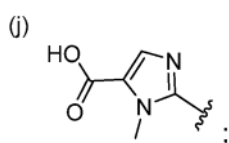
2. The compound according to claim 1, wherein ring Z is a group selected from the group consisting of following (a) to (J):

[Chem.4]



and

[Chem.5]



5 or a pharmaceutically acceptable salt thereof.

~~Claim 3~~

3. The compound according to claim 2 or a pharmaceutically acceptable salt thereof, wherein ring W is phenyl or 5- or 6-membered heteroaryl.

10

~~Claim 4~~

4. The compound according to claim 3 or a pharmaceutically acceptable salt thereof, wherein r is 0.

15

~~Claim 5~~

5. The compound according to claim 4 or a pharmaceutically acceptable salt thereof, wherein p is 2 and q is 1.

~~Claim 6~~

20 6. The compound according to claim 5 or a pharmaceutically acceptable salt thereof, wherein

R¹ is a hydrogen atom or a halogen atom.

~~Claim 7~~

7. The compound according to claim 6:

5 wherein R² is a hydrogen atom, C₁₋₆ alkyl, halo C₁₋₆ alkyl, C₁₋₆ alkoxy, carboxy or -CONR⁵R^{5'};

wherein R⁵ and R^{5'} are each independently a hydrogen atom, carboxy C₁₋₆ alkyl or 3- to 8-membered heterocycloalkyl;

or a pharmaceutically acceptable salt thereof.

10

~~Claim 8~~

8. The compound according to claim 7:

wherein R³ is a hydrogen atom, a halogen atom, C₁₋₆ alkyl, ~~halo C₁₋₆ alkyl~~, C₁₋₆ alkoxy, ~~halo C₁₋₆ alkoxy~~, ~~C₂₋₆ alkenyl~~, C₁₋₆ alkylsulfanyl, C₁₋₆ alkylsulfonyl, hydroxy, cyano, -CO₂R⁷, -

15 CONR⁸R^{8'} or group A;

wherein R⁷ and u have the same meanings as those described in claim 1;

R⁸ and R^{8'} are each independently a hydrogen atom or carboxy C₁₋₆ alkyl; and

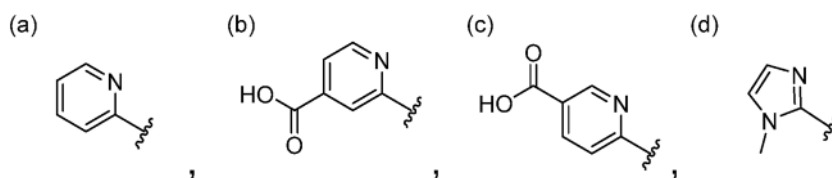
group A is phenyl which is unsubstituted or substituted with 1 to 3 groups selected from substituent group B or unsubstituted 5- or 6-membered heteroaryl;

20 wherein substituent group B is a halogen atom, C₁₋₆ alkyl, halo C₁₋₆ alkyl, C₁₋₆ alkoxy, halo C₁₋₆ alkoxy, hydroxy, cyano or carboxy;
or a pharmaceutically acceptable salt thereof.

~~Claim 9~~

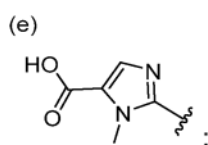
25 9. The compound according to claim 8, wherein ring Z is a group selected from the group consisting of following (a) to (e):

[Chem.6]



and

[Chem.7]

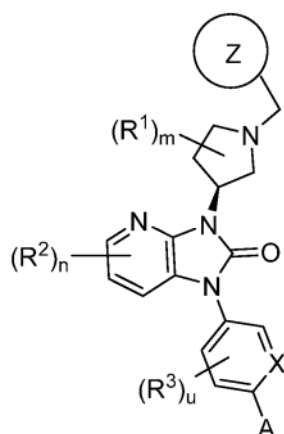


5 or a pharmaceutically acceptable salt thereof.

~~Claim 10~~

10. The compound according to claim 9 which is represented by the following formula:

[Chem.8]



10

wherein

X is CR³ or N;

u is 1 or 2;

R¹ has the same meanings as those described in claim 6;

15 R² has the same meanings as those described in claim 7;

R³ is a hydrogen atom, C₁₋₆ alkyl or hydroxy;

group A has the same meanings as those described in claim 8;

ring Z has the same meanings as those described in claim 9; and
 m and n have the same meanings as those described in claim 1;
 or a pharmaceutically acceptable salt thereof.

5 ~~Claim 11~~

11. The compound according to claim 1:

wherein u is 2 or 3;

one R³ is group A; and

the other R³s are each independently a hydrogen atom, a halogen atom, C₁₋₆ alkyl, halo C₁₋₆

10 alkyl, C₁₋₆ alkoxy, halo C₁₋₆ alkoxy, C₂₋₆ alkenyl, C₁₋₆ alkylsulfanyl, C₁₋₆ alkylsulfonyl,

hydroxy, cyano, nitro, -NR⁶R^{6'}, -CO₂R⁷ or -CONR⁸R^{8'};

wherein group A, R⁶, R^{6'}, R⁷, R⁸ and R^{8'} have the same meanings as those described in claim
 1;

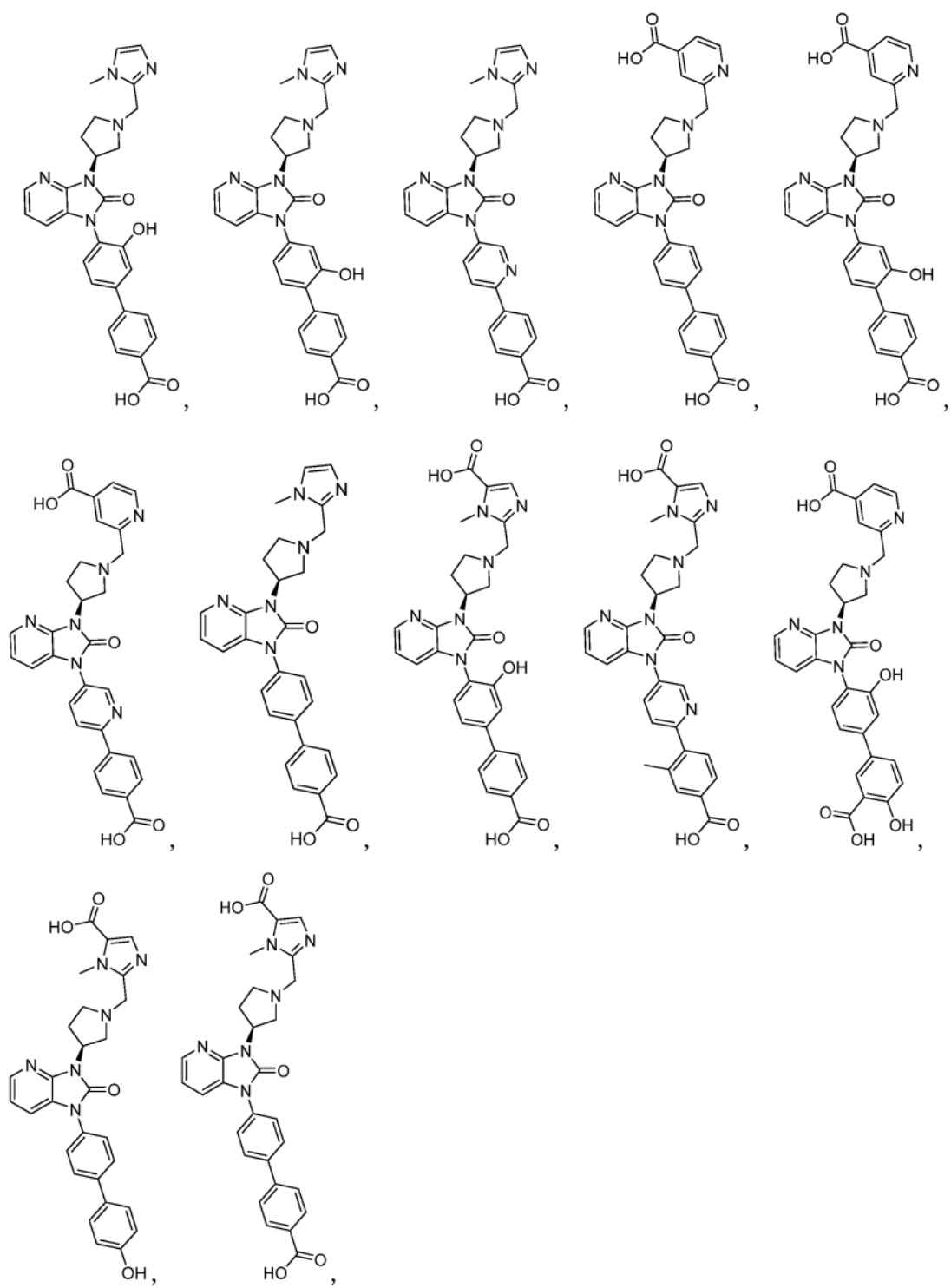
or a pharmaceutically acceptable salt thereof.

15

~~Claim 12~~

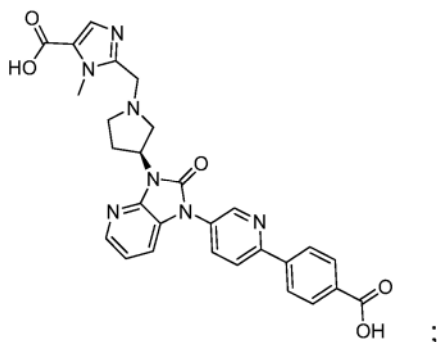
12. A compound selected from the group consisting of the following compounds:

[Chem.9]



and

[Chem.10]

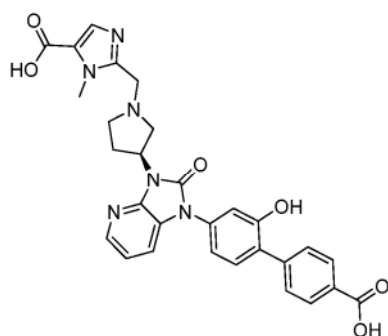


or a pharmaceutically acceptable salt thereof.

~~Claim 13~~

- 5 13. A compound represented by the following formula:

[Chem.11]



or a pharmaceutically acceptable salt thereof.

10 ~~Claim 14~~

14. A pharmaceutical composition comprising the compound according to any one of claims 1 to 13 or a pharmaceutically acceptable salt thereof, and pharmaceutical additive.

~~Claim 15~~

- 15 15. The pharmaceutical composition according to claim 14 which is a pharmaceutical composition for use in the treatment of an inflammatory bowel disease.

~~Claim 16~~

16. The pharmaceutical composition according to claim 15, wherein the inflammatory bowel disease is ulcerative colitis or Crohn's disease.