

(I)

wherein:

A represents a C_{6-10} aryl group or a heteroaryl group, wherein the aryl group or heteroaryl group may be unsubstituted or substituted with 1 to 3 groups Q which are the same or different from one another and selected from the group consisting of a halogen atom, -CN, $-NO_2$, a C_{1-6} alkyl group, a C_{3-7} cycloalkyl group, a C_{1-6} halogenoalkyl group, a phenyl group, $-CH_2-O-R^2$, $-O-R^2$, $-O-C_{1-6}$ halogenoalkyl, -O-benzyl, -O-phenyl, $-O-CO-R^2$, $-NR^3R^4$, $-NH-CO-R^2$, $-CO_2-R^2$, $-CO-R^2$, $-CO-NR^3R^4$, $-NH-SO_2-R^2$, -CO-aryl, $-S-R^2$, $-SO_2-C_{1-6}$ alkyl, and $-SO_2$-phenyl;

X, Y, and Z represent CR^5 or a nitrogen atom, wherein one of X, Y, and Z represents a nitrogen atom and the remaining two represent CR^5;

R represents a hydrogen atom or a C_{1-6} alkyl group;

R^1 represents a hydrogen atom, an amino group, or a C_{1-6} alkyl group;

R^2 represents a hydrogen atom or a C_{1-6} alkyl group;

R^3 and R^4 are the same or different from each other and are a hydrogen atom or a C_{1-6} alkyl group, where R^3 and R^4 may be taken together to form with the nitrogen atom to which they are attached a nitrogen-containing saturated monocyclic heterocycle; and

R^5 represents a hydrogen atom, a halogen atom, or a C_{1-6} alkyl group;

or a pharmaceutically acceptable salt thereof.

The present invention also provides a compound selected from the following (1) to (107):

(1) 1-(4-cyano-5-phenylpyridin-2-yl)-1H-pyrazole-4-carboxylic acid;

(2) 1-[4-cyano-5-(4-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(3) 1-[4-cyano-5-(2-ethoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(4) 1-[4-cyano-5-(2-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(5) 1-[4-cyano-5-(2-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(6) 1-[4-cyano-5-(2-chlorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(7) 1-[4-cyano-5-(2-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(8) 1-{4-cyano-5-[2-(trifluoromethyl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(9) 1-{4-cyano-5-[2-(trifluoromethoxy)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(10) 1-[4-cyano-5-(3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(11) 1-[4-cyano-5-(3-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(12) 1-[4-cyano-5-(3-chlorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(13) 1-[4-cyano-5-(3-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(14) 1-[4-cyano-5-(4-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(15) 1-[4-cyano-5-(4-chlorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(16) 1-[4-cyano-5-(4-hydroxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(17) 1-[4-cyano-5-(2-ethoxy-6-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(18) 1-[4-cyano-5-(2-fluoro-6-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(19) 1-[4-cyano-5-(2-fluoro-3-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(20) 1-[4-cyano-5-(2,3-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(21) 1-[4-cyano-5-(thiophen-3-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(22) 1-[4-cyano-5-(3-methylthiophen-2-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(23) 1-[4-cyano-5-(furan-3-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(24) 1-[4-cyano-5-(3-methoxypyridin-4-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(25) 1-[4-cyano-5-(pyridin-3-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(26) 1-(4-cyano-5-phenylpyridin-2-yl)-3-methyl-1H-pyrazole-4-carboxylic acid;

(27) 1-(4-cyano-5-phenylpyridin-2-yl)-3-(propan-2-yl)-1H-pyrazole-4-carboxylic acid;

(28) 1-(4-cyano-5-phenylpyridin-2-yl)-3,5-dimethyl-1H-pyrazole-4-carboxylic acid;

(29) 1-[4-cyano-5-(4-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(30) 1-[4-cyano-5-(3-ethoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(31) 1-[4-cyano-5-(3-propoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(32) 1-[4-cyano-5-(2,4-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(33) 1-[4-cyano-5-(2-fluoro-4-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(34) 1-[4-cyano-5-(2-fluoro-5-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(35) 1-[4-cyano-5-(2,5-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(36) 1-[4-cyano-5-(2-fluoro-3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(37) 1-[4-cyano-5-(4-fluoro-3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(38) 1-[4-cyano-5-(2,3-dimethylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(39) 1-[4-cyano-5-(3-fluoro-4-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic

acid;

(40) 1-[4-cyano-5-(3-chloro-4-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(41) 1-[4-cyano-5-(3-chloro-2-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(42) 1-[5-(4-carboxyphenyl)-4-cyanopyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(43) 1-{4-cyano-5-[4-(trifluoromethyl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(44) 1-{4-cyano-5-[4-(trifluoromethoxy)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(45) 1-{4-cyano-5-[3-(trifluoromethyl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(46) 1-{4-cyano-5-[3-(difluoromethoxy)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(47) 1-{4-cyano-5-[4-(propane-2-yl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(48) 1-{4-cyano-5-[3-(propane-2-yl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(49) 1-[4-cyano-5-(4-fluoro-2-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(50) 1-[4-cyano-5-(4-fluoro-2-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(51) 1-[4-cyano-5-(4-chloro-3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(52) 1-{ 4-cyano-5-[(4-propan-2-yloxy)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(53) 1-[5-(4-tert-butylphenyl)-4-cyanopyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(54) 1-[4-cyano-5-(4-phenoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(55) 1-{4-cyano-5-[4-(methoxymethyl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(56) 1-{4-cyano-5-[3-(2-methylpropoxy)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(57) 1-[4-cyano-5-(naphthalen-2-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(58) 1-[4-cyano-5-(4-methoxypyridin-3-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(59) 1-{4-cyano-5-[6-(dimethylamino)pyridin-3-yl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(60) 1-[4-cyano-5-(5-fluoropyridin-3-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(61) 1-[5-(1-benzothiophen-3-yl)-4-cyanopyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(62) 1-[4-cyano-5-(pyridin-4-yl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(63) 1-{4-cyano-5-[4-(methylsulfanyl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(64) 1-{4-cyano-5-[4-(morpholin-4-yl)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(65) 1-[4-cyano-5-(4-phenylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxyic acid;

(66) 1-{5-[4-(benzyloxy)phenyl]-4-cyanopyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(67) 1-{4-cyano-5-[3-(dimethylamino)phenyl]pyridin-2-yl}-1H-pyrazole-4-carboxylic acid;

(68) 1-[5-(4-aminophenyl)-4-cyanopyridin-2-yl]-1*H*-pyrazole-4-carboxylic acid;

(69) 1-[4-cyano-5-(4-methanesulfonamidophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(70) 1-(4-cyano-5-{4-[(morpholin-4-yl)carbonyl]phenyl}pyridin-2-yl)-1H-pyrazole-4-carboxylic acid;

(71) 1-[5-(4-acetophenyl)-4-cyanopyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(72) 1-[4-cyano-5-(3-nitrophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(73) 1-[5-(4-benzoylphenyl)-4-cyanopyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(74) 1-[4-cyano-5-(4-methanesulfonylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(75) 1-(5-cyano-6-phenylpyridin-3-yl)-1H-pyrazole-4-carboxylic acid;

(76) 1-[5-cyano-6-(2-fluorophenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(77) 1-[5-cyano-6-(2,4-difluorophenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(78) 1-[5-cyano-6-(2-fluoro-4-methylphenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(79) 1-[5-cyano-6-(2-fluoro-5-methylphenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(80) 1-[5-cyano-6-(2,5-difluorophenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(81) 1-[5-cyano-6-(2,3-difluorophenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(82) 1-[5-cyano-6-(4-fluoro-3-methylphenyl)pyridin-3-yl]-1H-pyrazole-4-carboxyic acid;

(83) 1-[5-cyano-6-(3-fluoro-4-methylphenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(84) 1-[5-cyano-6-(2-fluoro-5-methoxyphenyl)pyridin-3-yl]-1H-pyrazole-4-carboxylic acid;

(85) 1-(6-cyano-5-phenylpyridin-2-yl)-1H-pyrazole-4-carboxylic acid;

(86) 1-[6-cyano-5-(2-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(87) 1-[6-cyano-5-(2-fluoro-4-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(88) 1-[6-cyano-5-(2-fluoro-5-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(89) 1-[6-cyano-5-(4-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(90) 1-[6-cyano-5-(2,4-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(91) 1-[6-cyano-5-(2-fluoro-5-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(92) 1-[6-cyano-5-(3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(93) 1-[6-cyano-5-(3-ethoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(94) 1-[6-cyano-5-(4-fluoro-3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(95) 1-[6-cyano-5-(2,6-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(96) 1-[6-cyano-5-(2-fluoro-6-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(97) 3-amino-1-(4-cyano-5-phenylpyridin-2-yl)-1H-pyrazole-4-carboxylic acid;

(98) 3-amino-1-[4-cyano-5-(2-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(99) 3-amino-1-[4-cyano-5-(4-fluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(100) 3-amino-1-[4-cyano-5-(4-chlorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(101) 3-amino-1-[4-cyano-5-(3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(102) 3-amino-1-[4-cyano-5-(3-methoxyphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(103) 3-amino-1-[4-cyano-5-(2-fluoro-4-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(104) 3-amino-1-[4-cyano-5-(2-fluoro-5-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(105) 3-amino-1-[4-cyano-5-(2,4-difluorophenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid;

(106) 3-amino-1-[4-cyano-5-(4-fluoro-3-methylphenyl)pyridin-2-yl]-1H-pyrazole-4-carboxylic acid; and

(107) 3-amino-1-[4-cyano-5-(2-fluoro-5-methoxyphenyl)pyridine-2-yl]-1H-pyrazole-4-carboxylic acid;

or a pharmaceutically acceptable salt thereof.

The present invention is also a pharmaceutical composition comprising a compound represented by the above formula (I), or a pharmaceutically acceptable salt