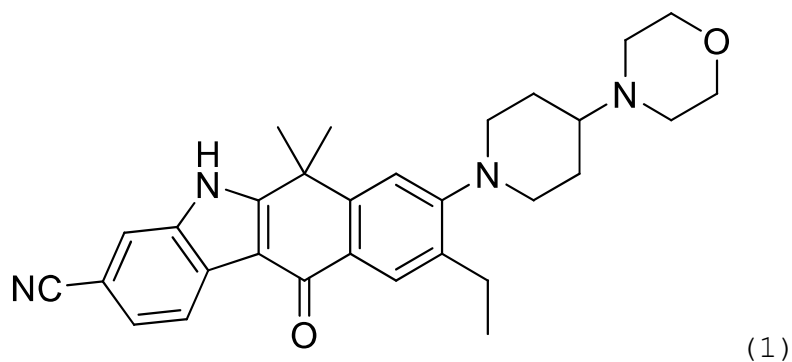


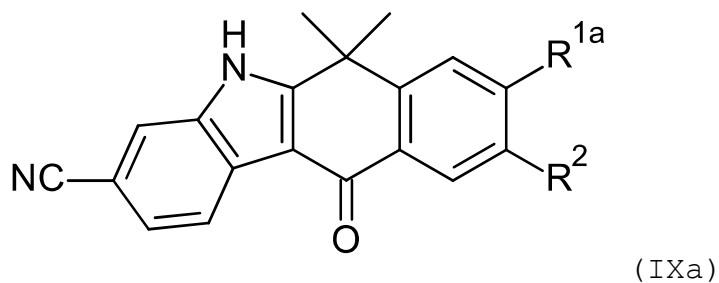
CLAIMS

[Claim 1]

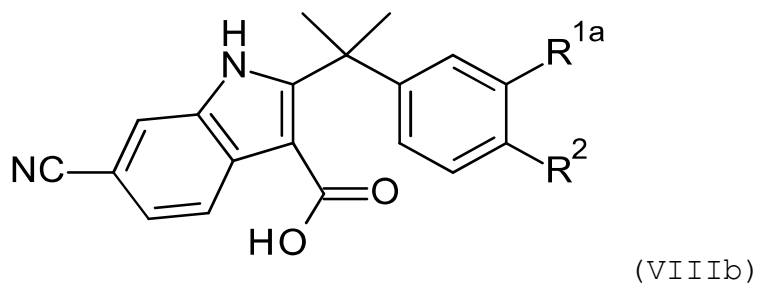
A method for manufacturing
Compound (1):



a pharmaceutically acceptable salt thereof, ~~or a solvate thereof,~~ the method comprising a step of manufacturing a compound represented by Formula IXa:



a pharmaceutically acceptable salt thereof, ~~or a solvate thereof,~~ by treating a compound represented by Formula VIIIb:



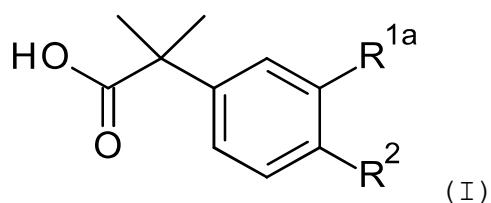
wherein R^{1a} represents 4-(morpholin-4-yl)piperidin-1-yl ~~a leaving group, or an optionally substituted 6-membered saturated cyclic amino group;~~ and R^2 represents an C_1 - C_6 -alkylethyl group,

with a condensing agent in a solvent selected from dichloromethane, 1,4-dioxane, 2-methyltetrahydrofuran, 2-butanone, tert-butyl methyl ether, ethyl acetate, isopropyl acetate, dimethyl sulfoxide, tetrahydrofuran, acetone, and acetonitrile.

[Claim 2]

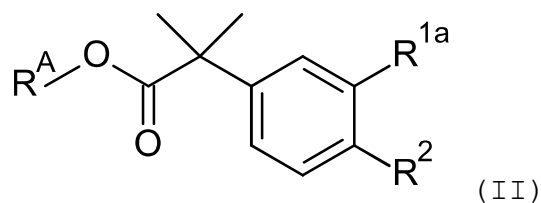
The method according to claim 1, further comprising ~~any of:~~

(1) Step 1a: a step of reacting a compound represented by Formula I:



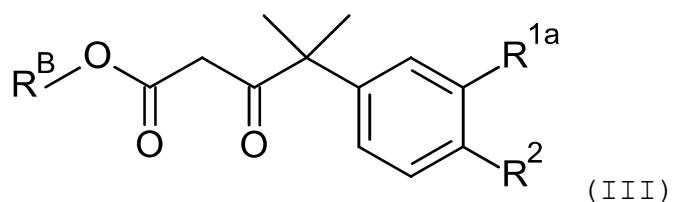
wherein R^{1a} represents 4-(morpholin-4-yl)piperidin-1-yl group, iodo or bromo group and R^2 ~~are as defined above~~represents an ethyl group,

in the presence of an acid to produce a compound represented by Formula II:



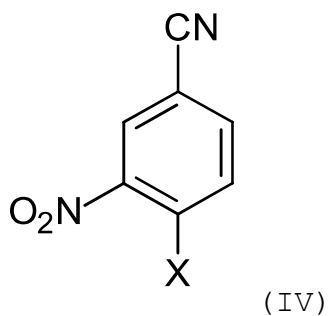
wherein R^{1a} and R^2 are as defined above; and R^A represents a C_1 - C_6 alkyl group;

(2) Step 1b: a step of reacting the compound represented by Formula II with a base and $AcOR^B$ to produce a compound represented by Formula III:

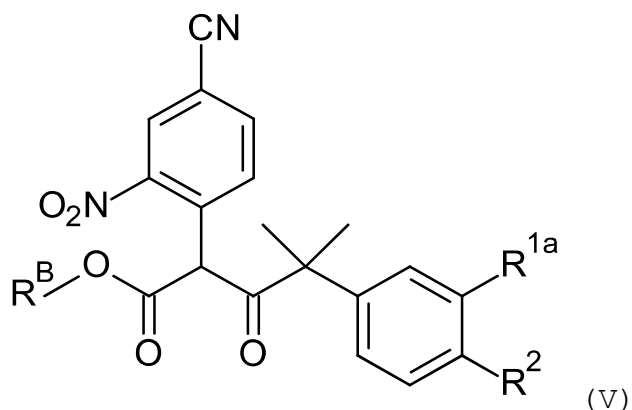


wherein R^{1a} , and R^2 , ~~and R^A~~ are as defined above, and R^B represents a C_1 - C_6 alkyl group;

(3) Step 2a: a step of reacting the compound represented by Formula III with a compound represented by Formula IV and a base:

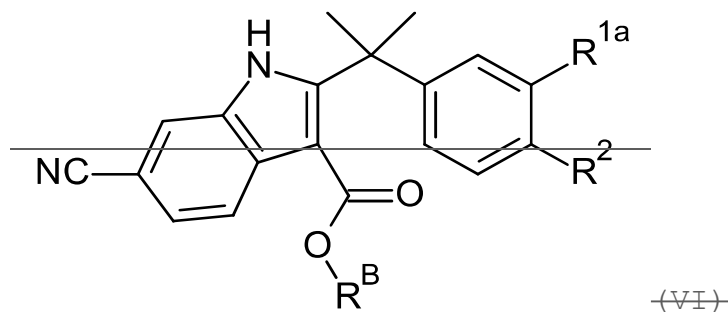


wherein X represents a leaving group,
to produce a compound represented by Formula V:



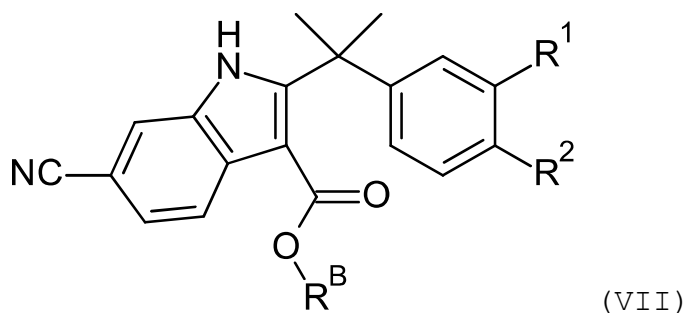
wherein R^{1a} , R^2 , and R^B are as defined above; and any one of (4) and (5):

(4) Step 2b-c: a step of reacting the compound represented by Formula V wherein R^{1a} represents 4-(morpholin-4-yl)piperidin-1-yl group with a reducing agent ~~to produce a compound represented by Formula VI:~~



~~wherein R^{1a} , R^2 , and R^B are as defined above;~~

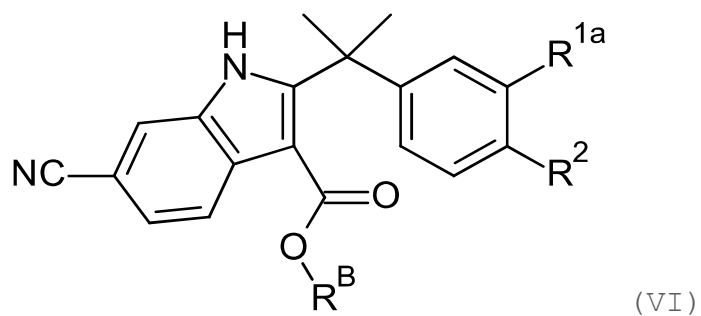
~~(5) Step 3: a step of reacting the compound represented by Formula VI in the presence of a palladium catalyst with an optionally substituted 6-membered saturated cyclic amine to produce a compound represented by Formula VII:~~



wherein R^1 represents 4-(morpholin-4-yl)piperidin-1-yl~~an optionally substituted 6-membered saturated cyclic amino group~~; and R^2 and R^B are as defined above~~;~~;

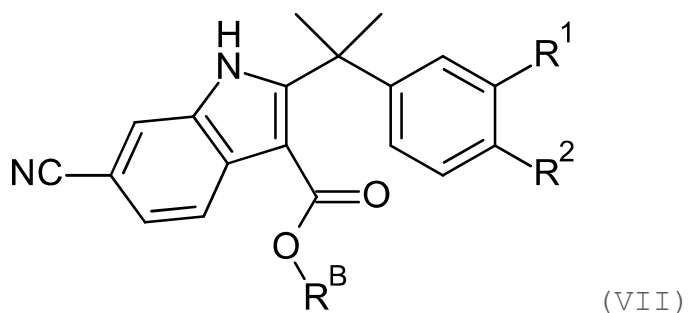
(5) Step 3: a step of reacting the compound represented by Formula V where R^{1a} represents iodo or bromo group with a reducing agent to produce a compound represented by Formula (VI);

Formula VI:



wherein R^{1a} represents iodo or bromo group, R^2 , and R^B are as defined above;

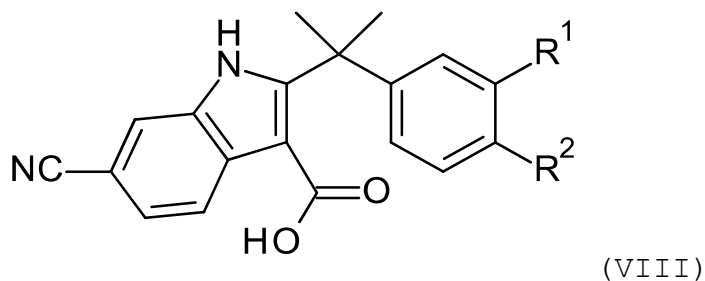
a step of reacting the compound represented by Formula (VI) with 4-(4-piperidinyl)morpholin in the presence of a palladium catalyst to produce a compound represented by Formula VII:



wherein R^1 represents 4-(morpholin-4-yl)piperidin-1-yl group and R^2 and R^B are as defined above,

a pharmaceutically acceptable salt thereof, ~~or a solvate of either of them;~~ and

(6) Step 4: a step of reacting the compound represented by Formula VII with an acid to produce a compound represented by Formula VIII:



wherein R^1 and R^2 are as defined above.

[Claim 3]

The method according to claim 1, wherein the condensing agent is N,N'-diisopropylcarbodiimide, or diethyl chlorophosphate.

[Claim 4]

The method according to claim 1, wherein the solvent is selected from tetrahydrofuran, acetone, and acetonitrile.

[Claim 5]

The method according to claim 2, wherein the acid in (1) is acetyl chloride.

[Claim 6]

The method according to claim 2, wherein the base in (2) is lithium hexamethyldisilazide, or sodium hexamethyldisilazide.

[Claim 7]

The method according to claim 2, wherein the R^B in (2) is a tert-butyl group.

[Claim 8]

The method according to claim 2, wherein the leaving group in (3) is a fluoro group or a chloro group.

[Claim 9]

The method according to claim 2, wherein the base in (3) is sodium hydroxide, potassium phosphate, potassium carbonate, or cesium carbonate, and the reaction solvent is tetrahydrofuran.

[Claim 10]

The method according to claim 2, wherein the reducing agent in (4) is sodium hydrosulfite.

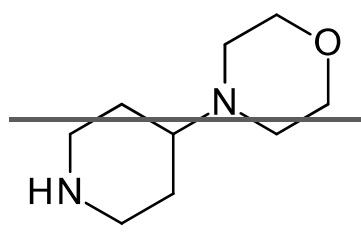
[Claim 11]

The method according to claim 2, wherein the palladium catalyst in (5) is a combination of II-allylpalladium chloride dimer and 2',6'-dimethoxy-2-(dicyclohexylphosphino)biphenyl (S-Phos), PEPPSI-IPent, or S-Phos Pd(crotyl)Cl; and the reaction in the step 3 is

carried out in a mixed solvent of tetrahydrofuran and 1,3-dimethyl-2-imidazolidinone.

[Claim 12]

~~The method according to claim 2, wherein the optionally substituted 6-membered saturated cyclic amine in (5) is represented by the following Formula:~~



~~and R^{1a} is an iodo group, or a bromo group.~~

~~[Claim 13]~~

The method according to claim 2, wherein the acid in (6) is trimethylsilyl chloride, or 2,2,2-trifluoroethanol.

[Claim ~~14~~13]

The method according to any one of claims 1 to ~~13~~12, wherein the Compound (1) is a hydrochloride.

[Claim ~~15~~14]

The method according to any one of claims 1 to ~~14~~13, wherein the Compound (1) is a hydrochloride, and other than the Compound (1), a compound represented by Formula X is produced at 0.08% or less based on the weight of the hydrochloride of the Compound (1).

