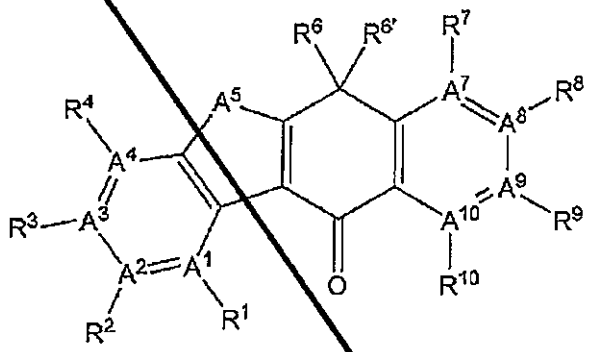
CLAIMS

[Claim 1]

A composition comprising a substance represented by the Formula (I), a pharmaceutically acceptable carrier, and a dissolution aid,



(I)

[wherein,

A^1, A^2, A^3, A^4, A^7, A^8, A^9 and A^{10} all represent C, or any one of A^2, A^3, A^4, A^7, A^8 and A^9 represents N (with the proviso that, when it represents N, no substituent group exists therefor) and the remainings represent C;

A^5 is selected from NR^5, O and S;

R^1 and R^{10} each independently represent [1] a hydrogen atom, [2] a cyano group, [3] a halogen atom or [4] a 4- to 10-membered heterocycloalkyl group which may be substituted by 4- to 10-membered heterocycloalkyl group(s);

R^2 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group,

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a cyano group,

(6) a halogen atom,

(7) a $(C_{1-8}$ alkyl$)_{m2}$-amino group which may be substituted by C_{1-8} alkylsulfonyl group(s),

m2: 0~2, and

(8) a nitro group;

R^3 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by [1] halogen atom(s), [2] hydroxy group(s) or [3] C_{1-8} alkoxy group(s),

(3) a C_{6-10} aryl group,

(4) a cyano group,

(5) a C_{1-8} alkanoyl group which may be substituted by C_{6-10} aryl group(s),

(6) a (C1-8 alkyl)$_{m3a}$-aminocarbonyl group which may be substituted by one or more R^{3A},

R^{3A}: [1] a C_{6-10} aryl group, [2] a C_{1-8} alkoxy group, [3] a 5- to 14-membered heteroaryl group, or [4] a C_{6-10} arylsulfonyl group,

m3a: 0~2,

(7) a hydroxycarbonyl group,

(8) a C_{1-8} alkoxycarbonyl group which may be substituted by [1] hydroxy group(s) or [2] C_{1-8} alkoxy group(s),

(9) a halogen atom,

(10) a (C_{1-8} alkyl)$_{m3b}$-amino group which may be substituted by C_{6-10} aryl group(s),

m3b: 0~2,

(11) a C_{1-8} alkylcarbonyl (C_{0-8} alkyl) amino group which may be substituted by [1] C_{6-10} aryl group(s) or [2] C_{6-10} aryloxy group(s),

(12) a C_{6-10} arylcarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by halogen atom(s),

(13) a (C_{1-8} alkyl)$_{m3c}$-aminocarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{6-10} aryl group(s),

m3c: 0~2,

(14) a nitro group,

(15) a hydroxy group,

(16) a C_{1-8} alkoxy group which may be substituted by one or more R^{3B},

R^{3B}: [1] a hydroxy group, [2] a C_{1-8} alkoxy group, [3] a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyl group, [4] a (C_{1-8} alkyl)$_{m3d}$-amino group, or [5] a halogen atom,

m3d: 0~2,

(17) a 4- to 10-membered heterocycloalkyloxy group,

(18) a 5- to 14-membered heteroaryloxy group,

(19) a $(C_{1-8}$ alkyl$)_{m3c}$-aminocarbonyloxy group which may be substituted by C_{6-10} aryl group(s),

m3e: 0~2,

(20) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group,

(21) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s),

(22) a C_{1-8} alkylthio group,

(23) a C_{1-8} alkylsulfonyl group which may be substituted by C_{6-10} aryl group(s),

(24) a 5- to 14-membered heteroaryl group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by C_{1-8} alkoxy group(s),

(25) a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkoxy group(s),

(26) a C_{6-10} aryloxycarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by halogen atom(s),

(27) a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyl (C_{0-8} alkyl) amino group which may be substituted by one or more R^{3C},

R^{3C}: [1] a C_{1-8} alkyl group which may be substituted by halogen atom(s), or [2] a C_{1-8} alkoxy group,

(28) a C_{3-8} cycloalkyl (C_{0-8} alkyl) aminocarbonyloxy group, and

(29) a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyloxy group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkyl group and [2] a C_{1-8} alkoxy group;

R^4 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by halogen atom(s),

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a C_{3-8} cycloalkyl group,

(6) a cyano group,

(7) an aminocarbonyl group,

(8) a $(C_{1-8}$ alkyl$)_{m4a}$-aminocarbonyl group,

m4a: 1~2,

(9) a hydroxycarbonyl group,

(10) a C_{1-8} alkoxycarbonyl group,

(11) a halogen atom,

(12) a $(C_{1-8}$ alkyl$)_{m4b}$- amino group,

m4b: 0~2,

(13) a hydroxy group, and

(14) a C_{1-8} alkoxy group which may be substituted by hydroxy group(s);

R^5 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{5A},

R^{5A}: [1] a hydroxycarbonyl group, [2] a C_{1-8} alkoxycarbonyl group, [3] a hydroxy group, [4] a C_{1-8} alkoxy group, [5] a $(C_{1-8}$ alkyl$)_{m5}$-amino group, [6] a C_{6-10} aryl group, or [7] a C_{1-8} alkylthio group,

m5: 0~2,

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a C_{3-8} cycloalkyl group, and

(6) a C_{1-8} alkylsulfonyl group;

R^6 and $R^{6'}$ are each independently selected from the group consisting of:

(1) a C_{1-8} alkyl group which may be substituted by halogen atom(s),

(2) a C_{2-8} alkenyl group, and

(3) a C_{2-8} alkynyl group; or

R^6 and $R^{6'}$ are taken together with the carbon atoms to which they are bound to form:

(4) a C_{3-8} cycloalkyl group, or

(5) a 4- to 10-membered heterocycloalkyl group which may be substituted by C_{1-8} alkyl, C_{6-10} aryl sulfonyl group(s) which may be substituted by C_{1-8} alkyl group(s);

R^7 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a halogen atom,

(3) a C_{1-8} alkoxy group which may be substituted by one or more R^{7A},

R^{7A}: [1] a $(C_{1-8}$ alkyl$)_{m7a}$-amino group, [2] a hydroxy, [3] a 4- to 10-memberd heterocycloalkyl group which may be substituted by C_{1-8} alkyl group(s),

m7a: 0~2,

(4) a C_{1-8} alkylsulfonyl group,

(5) a nitro group, and

(6) a hydroxyl group;

R^8 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{8A},

R^{8A}: [1] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8A1}, [2] a $(C_{1-8}$ alkyl$)_{m8a}$- amino group which may be substituted by a halogen atom, or [3] a hydroxy group,

m8a:0~2,

R^{8A1}: [1] a C_{1-8} alkyl group, [2] a C_{1-8} alkylsulfonyl group, [3] a $(C_{1-8}$ alkyl$)_{m8b}$-aminosulfonyl group, [4] an oxo group, [5] a C_{1-8} alkoxycarbonyl, or [6] a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) aminosulfonyl,

m8b: 0~2,

(3) a C_{2-8} alkenyl group,

(4) a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8B},

R^{8B}:

<1> a C_{1-8} alkyl group which may be substituted by one or more R^{8B1},

<2> a C_{2-8} alkeynyl group,

<3> a C_{2-8} alkynyl group,

<4> a C_{3-8} cycloalkyl group which may be substituted by [1] cyano group(s) or [2] C_{1-8} alkyl

group(s),

<5> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8B2},

<6> a C_{1-8} alkoxy group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkoxy group and [2] a C_{3-8} cycloalkyl group,

<7> a C_{1-8} alkoxycarbonyl group,

<8> a C_{1-8} alkylsulfonyl group,

<9> a 5- to 14-membered heteroarylsulfonyl group,

<10> an oxo group,

<11> a cyano group,

<12> a C_{1-8} alkanoyl group which may be substituted by one or more R^{8B3},

<13> a C_{3-8} cycloalkylcarbonyl group,

<14> a $(C_{1-8}$ alkyl$)_{m8c}$-aminosulfonyl group,

<15> a C_{1-8} alkylsulfonyl (C_{0-8} alkyl) amino group,

<16> a $(C_{1-8}$ alkyl$)_{m8d}$-amino group which may be substituted by one or more R^{8B4},

<17> a hydroxy group,

<18> a $(C_{1-8}$ alkyl$)_{m8e}$-aminocarbonyl group, or

<19> a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) amino group

m8c: 0~2

m8d: 0~2

m8e: 0~2

R^{8B1}: [1] a C_{3-8} cycloalkyl group, [2] a hydroxy group, or [3] a C_{1-8} alkoxy group(s) ,

R^{8B2}: [1] a halogen atom, [2] a C_{1-8} alkyl group, [3] an oxo group, [4] a hydroxy group, or [5] a deuterium atom,

R^{8B3}: a $(C_{1-8}$ alkyl$)_{m8f}$-amino group,

m8f: 0~2,

R^{8B4}: [1] a C_{3-8} cycloalkyl group, or [2] a hydroxy group,

(5) a 5- to 14-membered heteroaryl group which may be substituted by a C_{1-8} alkyl group,

(6) a $(C_{1-8}$ alkyl$)_{m8g}$-aminocarbonyl group which may be substituted by one or more R^{8C},

m8g: 0~2,

R^{8C}:[1] a hydroxy group, [2] a $(C_{1-8}$ alkyl$)_{m8h}$-amino group which may be substituted by

substituent group(s) selected from the group consisting of <1> a $(C_{1-8}$ alkyl$)_{m8i}$-aminosulfonyl group, <2> a C_{1-8} alkylsulfonyl group, <3> a C_{1-8} alkoxycarbonyl group and <4> a C_{1-8} alkoxycarbonyl(C_{0-8} alkyl) aminosulfonyl group, [3] a C_{1-8} alkylsulfonyl group, or [4] a C_{1-8} alkoxy group which may be substituted by a hydroxy group,

m8h: 0~2,

m8i: 0~2,

(7) a 4- to 10-membered heterocycloalkyl (C_{0-8} alkyl) aminocarbonyl group which may be substituted by oxo group(s),

(8) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by one or more R^{8D},

R^{8D}: [1] a C_{1-8} alkyl group which may be substituted by one or more R^{8D1}, [2] a hydroxy group, [3] a C_{1-8} alkylsulfonyl group, or [4] a C_{1-8} alkoxycarbonyl group,

R^{8D1}: [1] a hydroxy group, or [2] a C_{1-8} alkoxy group,

(9) a hydroxycarbonyl group,

(10) a C_{0-8} alkoxy (C_{0-8} alkyl) aminocarbonyl group which may be substituted by hydroxy group(s),

(11) a halogen atom,

(12) a $(C_{1-8}$ alkyl$)_{m8j}$-amino group which may be substituted by one or more R^{8H},

m8j: 0~2,

R^{8H}: [1] a hydroxy group, or [2] a 4- to 10-membered heterocycloalkyl group,

(13) a hydroxyl group,

(14) a C_{1-8} alkoxy group which may be substituted by one or more R^{8E},

R^{8E}:

<1> a hydroxy group,

<2> halogen atom,

<3> a hydroxycarbonyl group,

<4> a C_{1-8} alkoxycarbonyl group,

<5> a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by one or more R^{8E1},

<6> a $(C_{1-8}$ alkyl$)_{m8k1}$-amino group which may be substituted by one or more R^{8E2},

m8k1: 0~2,

<7> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8E3},

<8> a 5- to 14-membered heteroaryl group,

<9> a $(C_{1-8}$ alkyl$)_{m8k2}$-aminocarbonyl group which may be substituted by one or more R^{8E6},

m8k2: 0~2,

<10> a C_{1-8} alkoxy group which may be substituted by one or more R^{8E7},

<11> a C_{1-8} alkylthio group,

<12> a C_{1-8} alkylsulfinyl group,

<13> a C_{1-8} alkylsulfonyl group,

R^{8E1}:

<1> a C_{1-8} alkoxycarbonyl group,

<2> a C_{1-8} alkanoyl group,

<3> a C_{1-8} alkylsulfonyl group,

<4> a $(C_{1-8}$ alkyl$)_{m8k3}$-aminosulfonyl group,

m8k3: 0~2, or

<5> a 4- to 10-membered heterocycloalkyl group,

R^{8E2}:

<1> a hydroxy group,

<2> a C_{1-8} alkoxycarbonyl group which may be substituted by halogen atom(s),

<3> a C_{3-8} cycloalkyl group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by hydroxy group(s),

<4> a C_{1-8} alkanoyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a $(C_{1-8}$ alkyl$)_{m8k4}$-amino group and [2] a halogen atom(s),

m8k4: 0~2,

<5> a $(C_{1-8}$ alkyl$)_{m8k5}$-aminocarbonyl group,

m8k5: 0~2,

<6> a C_{1-8} alkylsulfonyl group,

<7> a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyl group which may be substituted by C_{1-8} alkyl group(s),

<8> a $(C_{1-8}$ alkyl$)_{m8k6}$-aminosulfonyl group which may be substituted by C_{1-8} alkoxycarbonyl group(s),

m8k6: 0~2, or

R^{8E3}:

<1> a C_{1-8} alkyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a hydroxy group and [2] a C_{1-8} alkylcarbonyloxy group,

<2> a C_{1-8} alkylcarbonyloxy group,

<3> a hydroxy group,

<4> a C_{3-8} cycloalkyl group,

<5> a C_{1-8} alkoxy group,

<6> a C_{1-8} alkoxycarbonyl group,

<7> a C_{1-8} alkylsulfonyl group,

<8> a $(C_{1-8}$ alkyl$)_{m8k8}$-aminocarbonyl group

m8k8: 0~2,

<9> a C_{1-8} alkanoyl group which may be substituted by hydroxy group(s),

<10> an oxo group, or

<11> a 4- to 10-membered heterocycloalkyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkanoyl group, [2] a C_{1-8} alkoxycarbonyl group and [3] a C_{1-8} alkylsulfonyl group,

R^{8E6}:

<1> a C_{2-8} alkenylcarbonyloxy group,

<2> a hydroxy group,

<3> a cyano group,

<4> a $(C_{1-8}$ alkyl$)_{m8k9}$-amino group which may be substituted by hydroxy group(s)

m8k9: 0~2,

<5> a C_{1-8} alkoxy group which may be substituted by hydroxy group(s),

<6> a C_{1-8} alkylcarbonyloxy group,

<7> a 4- to 10-membered heterocycloalkyl group which may be substituted by C_{1-8} alkyl group(s), or

<8> a 5- to 14-membered heteroaryl group,

R^{8E7}:

<1> a hydroxy group, or

<2> a C_{1-8} alkoxy group which may be substituted by hydroxy group(s),

(15) a 4- to 10-membered heterocycloalkyloxy group which may be substituted by one

or more R^{8F},

R^{8F}:

<1> a C_{1-8} alkyl group which may be substituted by one or more R^{8F1},

<2> a C_{3-8} cycloalkyl group,

<3> a C_{1-8} alkanoyl group which may be substituted by halogen atom(s),

<4> a C_{1-8} alkylcarbonyloxy group,

<5> a C_{1-8} alkoxycarbonyl group,

<6> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8F2},

<7> a C_{1-8} alkyl sulfonyl group,

<8> a hydroxy group, or

<9> a C_{6-10} aryl group,

R^{8F1}: [1]a hydroxy group, [2] a C_{1-8} alkoxy group, or [3] a halogen atom,

R^{8F2}: [1] a 4- to 10-membered heterocycloalkyl group, [2] a C_{1-8} alkoxycarbonyl group, or [3] a C_{1-8} alkylsulfonyl group,

(16) a 5- to 14-membered heteroaryloxy group,

(17) a 4- to 10-membered heterocycloalkylcarbonyloxy group,

(18) a $(C_{1-8}$ alkyl$)_{m811}$-aminosulfonyloxy group,

m811: 0~2,

(19) a C_{1-8} alkyl thio group which may be substituted by [1] $(C_{1-8}$ alkyl$)_{m812}$-amino group(s), [2] hydroxy group(s) or [3] hydroxycarbonyl group(s),

m812: 0~2,

(20) a C_{1-8} alkylsulfonyl group which may be substituted by one or more R^{8G},

R^{8G}: [1] a hydroxycarbonyl group, [2] a hydroxy group, or [3] a $(C_{1-8}$ alkyl$)_{m813}$-amino group,

m813: 0~2,

(21) a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyloxy group which may be substituted by C_{1-8} alkyl group(s),

(22) a C_{2-8} alkenyloxy group, and

(23) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s);

R^9 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{9A},

R^{9A}: [1] a C_{3-8} cycloalkyl group, [2] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9A1}, [3] a hydroxy group, [4] a C_{1-8} alkoxy group, or [5] a hydroxycarbonyl group,

R^{9A1}: [1] a C_{1-8} alkyl group, [2] a C_{3-8} cycloalkyl group, or [3] a 4- to 10-membered heterocycloalkyl group,

(3) a C_{2-8} alkenyl group which may be substituted by one or more R^{9B},

R^{9B}: [1] a $(C_{1-8}$ alkyl$)_{m9a}$-amino group, [2] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9B1},

R^{9B1}: [1] a C_{3-8} cycloalkyl group, or [2] a 4- to 10-membered heterocycloalkyl group,

m9a: 0~2,

(4) a C_{2-8} alkynyl group which may be substituted by one or more R^{9C},

R^{9C}: [1] a C_{1-8} alkoxy group, [2] a $(C_{1-8}$ alkyl$)_{m9b}$-amino group which may be substituted by C_{6-10} aryl group(s), [3] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9C1}, [4] a C_{3-8} cycloalkyl group, [5] a hydroxy group, [6] a hydroxycarbonyl group, or [7] a C_{1-8} alkyloxycarbonyl group,

m9b: 0~2,

R^{9C1}: [1] a C_{3-8} cycloalkyl group, [2] a 4- to 10-membered heterocycloalkyl group, or [3] an oxo group,

(5) a C_{3-8} cycloalkyl group,

(6) a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9D},

R^{9D}: [1] a C_{1-8} alkyl group which may be substituted by 4- to 10-membered heterocycloalkyl group(s), [2] a C_{3-8} cycloalkyl group, [3] a 4- to 10-membered heterocycloalkyl group, or [4] a C_{1-6} alkylsulfonyl group, or [5] a C_{1-8} alkoxycarbonyl group,

(7) a C_{6-10} aryl group which may be substituted by one or more R^{9E},

R^{9E}: [1] a halogen atom, [2] a hydroxy group, [3] a hydroxycarbonyl group, or [4] a C_{1-8} alkyl group which may be substituted by hydroxy group(s), or [5] a C_{1-8} alkoxy group,

(8) a 5- to 14-membered heteroaryl group which may be substituted by C_{1-8} alkyl group(s),

(9) a cyano group,

(10) a C_{1-8} alkanoyl group,

(11) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by C_{1-8} alkyl group(s),

(12) a halogen atom,

(13) a $(C_{1-8}$ alkyl$)_{m9c}$- amino group which may be substituted by one or more R^{9F},

m9c: 0~2,

(14) a C_{1-8} alkylcarbonyl(C_{0-8} alkyl)amino group which may be substituted by $(C_{1-8}$ alkyl$)_{m9d}$- amino group(s),

m9d: 0~2,

(15) a C_{1-8} alkylsulfonyl(C_{0-8} alkyl)amino group,

(16) a $(C_{1-8}$ alkyl$)_{m9e}$- aminosulfonyl(C_{0-8} alkyl)amino group,

m9e: 0~2,

(17) a nitro group,

(18) a hydroxy group,

(19) a C_{1-8} alkoxy group which may be substituted by one or more R^{9G},

R^{9G}: [1] a hydroxy group, [2] a hydroxycarbonyl group, [3] a C_{6-10} aryl group which may be substituted by C_{1-8} alkoxy group(s), [4] a $(C_{1-8}$ alkyl$)_{m9g1}$-amino group, [5] a C_{1-8} alkoxy group which may be substituted by one or more R^{9G1}, [6] a 5- to 14-membered heteroaryl group, or [7] a 4- to 10-membered heterocycloalkyloxy group which may be substituted by C_{1-8} alkyl group(s),

m9g1: 0~2,

R^{9G1}: [1] a C_{1-8} alkoxy group, or [2] a hydroxycarbonyl group,

(20) a 4- to 10-membered heterocycloalkyloxy group which may be substituted by [1] 4- to 10-membered heterocycloalkyl group(s), or [2] C_{1-8} alkoxycarbonyl group(s),

(21) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s),

(22) a C_{1-8} alkylthio group which may be substituted by $(C_{1-8}$ alkyl$)_{m9f}$- amino group(s),

m9f: 0~2,

(23) a C_{1-8} alkylsulfonyl group which may be substituted by $(C_{1-8}$ alkyl$)_{m9g}$-amino group(s),

m9g: 0~2,

(24) a (C_{1-8} alkyl)$_{m9h}$-aminosulfonyl group,

m9h: 0~2,

(25) a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyl group which may be substituted by C_{1-8} alkyl group(s), and

(26) a hydroxycarbonyl group].

[Claim 2]

The composition according to Claim 1, wherein said dissolution aid is a surfactant.

[Claim 3]

The composition according to Claim 2, wherein said surfactant is a non-ionic or an anionic surfactant.

[Claim 4]

The composition according to Claim 2 or 3, wherein said surfactant is selected from a group consisting of monoalkyl sulfate, polyoxyl 40 stearate, sorbitan trioleate, polyoxyethylene (105) polyoxypropylene (5) glycol, polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, lauromacrogol, dioctyl sodium sulfosuccinate, sodium lauroylsarcosine, sodium dodecylbenzene sulfonate, and a mixture thereof.

[Claim 5]

The composition according to any one of Claims 2 to 4, wherein said composition further comprises an organic polymer.

[Claim 6]

The composition according to Claim 5, wherein said organic polymer is selected from a group consisting of a synthetic resin, a water soluble polymer, a gastric-soluble polymer, an enteric-soluble polymer, and a mixture thereof.

[Claim 7]

The composition according to Claim 5, wherein said organic polymer is a synthetic resin.

[Claim 8]

The composition according to any one of Claims 2 to 7, wherein said composition further comprises one or more additives which are selected from the following additive group A:

additive A: citric acid, fumaric acid, DL-malic acid, adipic acid, succinic acid, tartaric acid, lactic acid, maleic acid, sulfuric acid, phosphoric acid, sodium dehydroacetate, sodium stearyl fumarate, stearic L-ascorbate ester, L-aspartic acid, skimmed milk powder, aluminum lactate, ascorbic acid palmitate, aluminum sulfate, monobasic calcium phosphate, or acetyl tryptophan.

[Claim 9]

The composition according to any one of Claims 1 to 8, wherein said water solubility of the substance is less than 100 μg/mL at 25°C.

[Claim 10]

The composition according to any one of Claims 1 to 8, wherein A^1 to A^4, A^6, and A^7 are a carbon atom, A^5 is NH, R^3 is cyano, R^6 and $R^{6'}$ are both methyl for the substance.

[Claim 11]

The composition according to any one of Claims 1 to 8, wherein said substance is selected from

9-(4-isopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-9-prop-1-ynyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-cyclopropylethynyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(1-oxetan-3-yl-piperidin-4-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-8-(4-cyclopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-chloro-6,6-dimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-9-prop-1-ynyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6,9-trimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethyl-6,6-dimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-ethyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-6,6-dimethyl-11-oxo-8-(4-pyrrolidin-1-yl-piperidin-1-yl)-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-11-oxo-8-(4-pyrrolidin-1-yl-piperidin-1-yl)-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-ethynyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-9-propyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(1-isopropyl-piperidin-4-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-isopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-cyclopropyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(2-tert-butylamino-ethoxy)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-8-(4-methanesulfonyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-9-propyl-6,11-dihydro-5H-

benzo[b]carbazole-3-carbonitrile; and
9-ethynyl-6,6-dimethyl-8-morpholin-4-yl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile.

[Claim 12]
An orally administrable formulation comprising the composition described in any one of Claims 1 to 11.

[Claim 13] The composition according to claims 1-12, wherein the dissolution aid which is selected from the following group.
Group:
citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, sodium stearylfumarate, methacrylic acid copolymer LD, methyl cellulose, sodium lauryl sulfate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, stearic L-ascorbate ester, L-aspartic acid, adipic acid, amino alkylmethacrylate copolymer E, propylene glycol alginate ester, casein, sodium caseinate, a carboxyvinyl polymer, carboxymethylethyl cellulose, powdered agar, guar gum, succinic acid, copolyvidone, cellulose acetate phthalate, tartaric acid, dioctyl sodium sulfosuccinate, zein, skimmed milk powder, sorbitantrioleate, lactic acid, aluminum lactate, ascorbic acid palmitate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate, polyoxyethylene (105) polyoxypropylene (5) glycol, polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, sodium polystyrene sulfonate, polyvinylacetaldiethylaminoacetate, polyvinyl alcohol, maleic acid, methacrylic acid copolymer S, sulfuric acid, aluminum sulfate, phosphoric acid, monobasic calcium phosphate, sodium dodecylbenzenesulfonate, a vinyl pyrrolidone·vinyl acetate copolymer, sodium lauroylsarcosine, acetyl tryptophan, sodium methyl sulfate, sodium ethyl sulfate, sodium butyl sulfate, sodium octyl sulfate, sodium decyl sulfate, sodium tetradecyl sulfate, sodium hexadecyl sulfate, and sodium octadecyl sulfate.

[Claim 14] The composition according to claims 1-12, wherein the dissolution aid which is selected from the following group.
Group:
citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, methacrylic acid copolymer LD, methyl cellulose, sodium lauryl sulfate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, stearic L-ascorbate ester, L-aspartic acid, adipic acid, propylene glycol alginate ester, casein, sodium caseinate, carboxymethylethyl cellulose, succinic acid, copolyvidone, dioctyl sodium sulfosuccinate, lactic acid, aluminum lactate, ascorbic acid

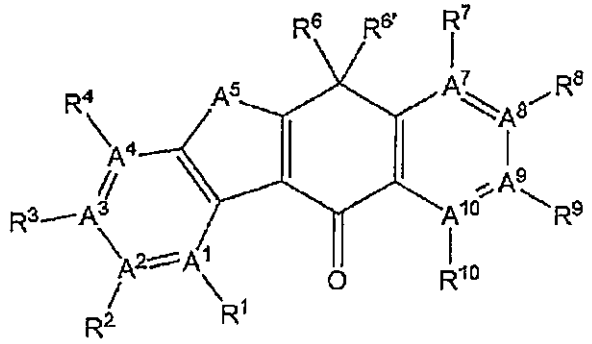
palmitate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate, polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, sodium polystyrene sulfonate, polyvinylacetaldiethylaminoacetate, polyvinyl alcohol, methacrylic acid copolymer S, sulfuric acid, aluminum sulfate, sodium dodecylbenzenesulfonate, a vinyl pyrrolidone· vinyl acetate copolymer, acetyl tryptophan, sodium decyl sulfate, sodium tetradecyl sulfate, and sodium octadecyl sulfate.

[Claim 15] The composition according to claims 1-12, wherein the dissolution aid which is selected from the following group.
Group:
citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, methacrylic acid copolymer LD, methyl cellulose, sodium lauryl sulfate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, L-aspartic acid, adipic acid, propylene glycol alginate ester, sodium caseinate, carboxymethylethyl cellulose, succinic acid, copolyvidone, dioctyl sodium sulfosuccinate, lactic acid, aluminum lactate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate, sodium polystyrene sulfonate, polyvinylacetaldiethylaminoacetate, methacrylic acid copolymer S, sulfuric acid, aluminum sulfate, a vinyl pyrrolidone· vinyl acetate copolymer, and sodium decyl sulfate.

CLAIMS

[Claim 1]

A composition comprising a substance represented by the Formula (I), a pharmaceutically acceptable carrier, and a dissolution aid,



(I)

[wherein,

A^1, A^2, A^3, A^4, A^7, A^8, A^9 and A^{10} all represent C, or any one of A^2, A^3, A^4, A^7, A^8 and A^9 represents N (with the proviso that, when it represents N, no substituent group exists therefor) and the remainings represent C;

A^5 is selected from NR^5, O and S;

R^1 and R^{10} each independently represent [1] a hydrogen atom, [2] a cyano group, [3] a halogen atom or [4] a 4- to 10-membered heterocycloalkyl group which may be substituted by 4- to 10-membered heterocycloalkyl group(s);

R^2 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group,

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a cyano group,

(6) a halogen atom,

(7) a $(C_{1-8}$ alkyl$)_{m2}$-amino group which may be substituted by C_{1-8} alkylsulfonyl group(s),

m2: 0~2, and

(8) a nitro group;

R^3 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by [1] halogen atom(s), [2] hydroxy group(s) or [3] C_{1-8} alkoxy group(s),

(3) a C_{6-10} aryl group,

(4) a cyano group,

(5) a C_{1-8} alkanoyl group which may be substituted by C_{6-10} aryl group(s),

(6) a (C1-8 alkyl)$_{m3a}$-aminocarbonyl group which may be substituted by one or more R^{3A},

R^{3A}: [1] a C_{6-10} aryl group, [2] a C_{1-8} alkoxy group, [3] a 5- to 14-membered heteroaryl group, or [4] a C_{6-10} arylsulfonyl group,

m3a: 0~2,

(7) a hydroxycarbonyl group,

(8) a C_{1-8} alkoxycarbonyl group which may be substituted by [1] hydroxy group(s) or [2] C_{1-8} alkoxy group(s),

(9) a halogen atom,

(10) a (C_{1-8} alkyl)$_{m3b}$-amino group which may be substituted by C_{6-10} aryl group(s),

m3b: 0~2,

(11) a C_{1-8} alkylcarbonyl (C_{0-8} alkyl) amino group which may be substituted by [1] C_{6-10} aryl group(s) or [2] C_{6-10} aryloxy group(s),

(12) a C_{6-10} arylcarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by halogen atom(s),

(13) a (C_{1-8} alkyl)$_{m3c}$-aminocarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{6-10} aryl group(s),

m3c: 0~2,

(14) a nitro group,

(15) a hydroxy group,

(16) a C_{1-8} alkoxy group which may be substituted by one or more R^{3B},

R^{3B}: [1] a hydroxy group, [2] a C_{1-8} alkoxy group, [3] a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyl group, [4] a (C_{1-8} alkyl)$_{m3d}$-amino group, or [5] a halogen atom,

m3d: 0~2,

(17) a 4- to 10-membered heterocycloalkyloxy group,

(18) a 5- to 14-membered heteroaryloxy group,

(19) a $(C_{1-8}$ alkyl$)_{m3e}$-aminocarbonyloxy group which may be substituted by C_{6-10} aryl group(s)

m3e: 0~2,

(20) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group,

(21) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s),

(22) a C_{1-8} alkylthio group,

(23) a C_{1-8} alkylsulfonyl group which may be substituted by C_{6-10} aryl group(s),

(24) a 5- to 14-membered heteroaryl group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by C_{1-8} alkoxy group(s),

(25) a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkoxy group(s),

(26) a C_{6-10} aryloxycarbonyl (C_{0-8} alkyl) amino group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by halogen atom(s),

(27) a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyl (C_{0-8} alkyl) amino group which may be substituted by one or more R^{3C},

R^{3C}: [1] a C_{1-8} alkyl group which may be substituted by halogen atom(s), or [2] a C_{1-8} alkoxy group,

(28) a C_{3-8} cycloalkyl (C_{0-8} alkyl) aminocarbonyloxy group, and

(29) a C_{6-10} aryl (C_{0-8} alkyl) aminocarbonyloxy group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkyl group and [2] a C_{1-8} alkoxy group;

R^4 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by halogen atom(s),

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a C_{3-8} cycloalkyl group,

(6) a cyano group,

(7) an aminocarbonyl group,

(8) a $(C_{1-8}$ alkyl$)_{m4a}$-aminocarbonyl group,

m4a: 1~2,

(9) a hydroxycarbonyl group,

(10) a C_{1-8} alkoxycarbonyl group,

(11) a halogen atom,

(12) a $(C_{1-8}$ alkyl$)_{m4b}$- amino group,

m4b: 0~2,

(13) a hydroxy group, and

(14) a C_{1-8} alkoxy group which may be substituted by hydroxy group(s);

R^5 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{5A},

R^{5A}: [1] a hydroxycarbonyl group, [2] a C_{1-8} alkoxycarbonyl group, [3] a hydroxy group, [4] a C_{1-8} alkoxy group, [5] a $(C_{1-8}$ alkyl$)_{m5}$-amino group, [6] a C_{6-10} aryl group, or [7] a C_{1-8} alkylthio group,

m5: 0~2,

(3) a C_{2-8} alkenyl group,

(4) a C_{2-8} alkynyl group,

(5) a C_{3-8} cycloalkyl group, and

(6) a C_{1-8} alkylsulfonyl group;

R^6 and $R^{6'}$ are each independently selected from the group consisting of:

(1) a C_{1-8} alkyl group which may be substituted by halogen atom(s),

(2) a C_{2-8} alkenyl group, and

(3) a C_{2-8} alkynyl group; or

R^6 and $R^{6'}$ are taken together with the carbon atoms to which they are bound to form:

(4) a C_{3-8} cycloalkyl group, or

(5) a 4- to 10-membered heterocycloalkyl group which may be substituted by C_{1-8} alkyl C_{6-10} aryl sulfonyl group(s) which may be substituted by C_{1-8} alkyl group(s);

R^7 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a halogen atom,

(3) a C_{1-8} alkoxy group which may be substituted by one or more R^{7A},

R^{7A}: [1] a $(C_{1-8}$ alkyl$)_{m7a}$-amino group, [2] a hydroxy, [3] a 4- to 10-memberd heterocycloalkyl group which may be substituted by C_{1-8} alkyl group(s),

m7a: 0~2,

(4) a C_{1-8} alkylsulfonyl group,

(5) a nitro group, and

(6) a hydroxyl group;

R^8 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{8A},

R^{8A}: [1] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8A1}, [2] a $(C_{1-8}$ alkyl$)_{m8a}$- amino group which may be substituted by a halogen atom, or [3] a hydroxy group,

m8a:0~2,

R^{8A1}: [1] a C_{1-8} alkyl group, [2] a C_{1-8} alkylsulfonyl group, [3] a $(C_{1-8}$ alkyl$)_{m8b}$-aminosulfonyl group, [4] an oxo group, [5] a C_{1-8} alkoxycarbonyl, or [6] a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) aminosulfonyl,

m8b: 0~2,

(3) a C_{2-8} alkenyl group,

(4) a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8B},

R^{8B}:

<1> a C_{1-8} alkyl group which may be substituted by one or more R^{8B1},

<2> a C_{2-8} alkeynyl group,

<3> a C_{2-8} alkynyl group,

<4> a C_{3-8} cycloalkyl group which may be substituted by [1] cyano group(s) or [2] C_{1-8} alkyl

group(s),

<5> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8B2},

<6> a C_{1-8} alkoxy group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkoxy group and [2] a C_{3-8} cycloalkyl group,

<7> a C_{1-8} alkoxycarbonyl group,

<8> a C_{1-8} alkylsulfonyl group,

<9> a 5- to 14-membered heteroarylsulfonyl group,

<10> an oxo group,

<11> a cyano group,

<12> a C_{1-8} alkanoyl group which may be substituted by one or more R^{8B3},

<13> a C_{3-8} cycloalkylcarbonyl group,

<14> a $(C_{1-8}$ alkyl$)_{m8c}$-aminosulfonyl group,

<15> a C_{1-8} alkylsulfonyl (C_{0-8} alkyl) amino group,

<16> a $(C_{1-8}$ alkyl$)_{m8d}$-amino group which may be substituted by one or more R^{8B4},

<17> a hydroxy group,

<18> a $(C_{1-8}$ alkyl$)_{m8e}$-aminocarbonyl group, or

<19> a C_{1-8} alkoxycarbonyl (C_{0-8} alkyl) amino group

m8c: 0~2

m8d: 0~2

m8e: 0~2

R^{8B1}: [1] a C_{3-8} cycloalkyl group, [2] a hydroxy group, or [3] a C_{1-8} alkoxy group(s) ,

R^{8B2}: [1] a halogen atom, [2] a C_{1-8} alkyl group, [3] an oxo group, [4] a hydroxy group, or [5] a deuterium atom,

R^{8B3}: a $(C_{1-8}$ alkyl$)_{m8f}$-amino group,

m8f: 0~2,

R^{8B4}: [1] a C_{3-8} cycloalkyl group, or [2] a hydroxy group,

(5) a 5- to 14-membered heteroaryl group which may be substituted by a C_{1-8} alkyl group,

(6) a $(C_{1-8}$ alkyl$)_{m8g}$-aminocarbonyl group which may be substituted by one or more R^{8C},

m8g: 0~2,

R^{8C}:[1] a hydroxy group, [2] a $(C_{1-8}$ alkyl$)_{m8h}$-amino group which may be substituted by

substituent group(s) selected from the group consisting of <1> a $(C_{1-8}$ alkyl$)_{m8i}$-aminosulfonyl group, <2> a C_{1-8} alkylsulfonyl group, <3> a C_{1-8} alkoxycarbonyl group and <4> a C_{1-8} alkoxycarbonyl(C_{0-8} alkyl) aminosulfonyl group, [3] a C_{1-8} alkylsulfonyl group, or [4] a C_{1-8} alkoxy group which may be substituted by a hydroxy group,

m8h: 0~2,

m8i: 0~2,

(7) a 4- to 10-membered heterocycloalkyl (C_{0-8} alkyl) aminocarbonyl group which may be substituted by oxo group(s),

(8) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by one or more R^{8D},

R^{8D}: [1] a C_{1-8} alkyl group which may be substituted by one or more R^{8D1}, [2] a hydroxy group, [3] a C_{1-8} alkylsulfonyl group, or [4] a C_{1-8} alkoxycarbonyl group,

R^{8D1}: [1] a hydroxy group, or [2] a C_{1-8} alkoxy group,

(9) a hydroxycarbonyl group,

(10) a C_{0-8} alkoxy (C_{0-8} alkyl) aminocarbonyl group which may be substituted by hydroxy group(s),

(11) a halogen atom,

(12) a $(C_{1-8}$ alkyl$)_{m8j}$-amino group which may be substituted by one or more R^{8H},

m8j: 0~2,

R^{8H}: [1] a hydroxy group, or [2] a 4- to 10-membered heterocycloalkyl group,

(13) a hydroxyl group,

(14) a C_{1-8} alkoxy group which may be substituted by one or more R^{8E},

R^{8E}:

<1> a hydroxy group,

<2> halogen atom,

<3> a hydroxycarbonyl group,

<4> a C_{1-8} alkoxycarbonyl group,

<5> a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by one or more R^{8E1},

<6> a $(C_{1-8}$ alkyl$)_{m8k1}$-amino group which may be substituted by one or more R^{8E2},

m8k1: 0~2,

<7> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8E3},

<8> a 5- to 14-membered heteroaryl group,

<9> a $(C_{1-8}$ alkyl$)_{m8k2}$-aminocarbonyl group which may be substituted by one or more R^{8E6},

m8k2: 0~2,

<10> a C_{1-8} alkoxy group which may be substituted by one or more R^{8E7},

<11> a C_{1-8} alkylthio group,

<12> a C_{1-8} alkylsulfinyl group,

<13> a C_{1-8} alkylsulfonyl group,

R^{8E1}:

<1> a C_{1-8} alkoxycarbonyl group,

<2> a C_{1-8} alkanoyl group,

<3> a C_{1-8} alkylsulfonyl group,

<4> a $(C_{1-8}$ alkyl$)_{m8k3}$-aminosulfonyl group,

m8k3: 0~2, or

<5> a 4- to 10-membered heterocycloalkyl group,

R^{8E2}:

<1> a hydroxy group,

<2> a C_{1-8} alkoxycarbonyl group which may be substituted by halogen atom(s),

<3> a C_{3-8} cycloalkyl group which may be substituted by C_{1-8} alkyl group(s) which may be substituted by hydroxy group(s),

<4> a C_{1-8} alkanoyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a $(C_{1-8}$ alkyl$)_{m8k4}$-amino group and [2] a halogen atom(s),

m8k4: 0~2,

<5> a $(C_{1-8}$ alkyl$)_{m8k5}$-aminocarbonyl group,

m8k5: 0~2,

<6> a C_{1-8} alkylsulfonyl group,

<7> a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyl group which may be substituted by C_{1-8} alkyl group(s),

<8> a $(C_{1-8}$ alkyl$)_{m8k6}$-aminosulfonyl group which may be substituted by C_{1-8} alkoxycarbonyl group(s),

m8k6: 0~2, or

R^{8E3}:

<1> a C_{1-8} alkyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a hydroxy group and [2] a C_{1-8} alkylcarbonyloxy group,

<2> a C_{1-8} alkylcarbonyloxy group,

<3> a hydroxy group,

<4> a C_{3-8} cycloalkyl group,

<5> a C_{1-8} alkoxy group,

<6> a C_{1-8} alkoxycarbonyl group,

<7> a C_{1-8} alkylsulfonyl group,

<8> a $(C_{1-8}$ alkyl$)_{m8k8}$-aminocarbonyl group

m8k8: 0~2,

<9> a C_{1-8} alkanoyl group which may be substituted by hydroxy group(s),

<10> an oxo group, or

<11> a 4- to 10-membered heterocycloalkyl group which may be substituted by substituent group(s) selected from the group consisting of [1] a C_{1-8} alkanoyl group, [2] a C_{1-8} alkoxycarbonyl group and [3] a C_{1-8} alkylsulfonyl group,

R^{8E6}:

<1> a C_{2-8} alkenylcarbonyloxy group,

<2> a hydroxy group,

<3> a cyano group,

<4> a $(C_{1-8}$ alkyl$)_{m8k9}$-amino group which may be substituted by hydroxy group(s)

m8k9: 0~2,

<5> a C_{1-8} alkoxy group which may be substituted by hydroxy group(s),

<6> a C_{1-8} alkylcarbonyloxy group,

<7> a 4- to 10-membered heterocycloalkyl group which may be substituted by C_{1-8} alkyl group(s), or

<8> a 5- to 14-membered heteroaryl group,

R^{8E7}:

<1> a hydroxy group, or

<2> a C_{1-8} alkoxy group which may be substituted by hydroxy group(s),

(15) a 4- to 10-membered heterocycloalkyloxy group which may be substituted by one

or more R^{8F},

R^{8F}:

<1> a C_{1-8} alkyl group which may be substituted by one or more R^{8F1},

<2> a C_{3-8} cycloalkyl group,

<3> a C_{1-8} alkanoyl group which may be substituted by halogen atom(s),

<4> a C_{1-8} alkylcarbonyloxy group,

<5> a C_{1-8} alkoxycarbonyl group,

<6> a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{8F2},

<7> a C_{1-8} alkyl sulfonyl group,

<8> a hydroxy group, or

<9> a C_{6-10} aryl group,

R^{8F1}: [1]a hydroxy group, [2] a C_{1-8} alkoxy group, or [3] a halogen atom,

R^{8F2}: [1] a 4- to 10-membered heterocycloalkyl group, [2] a C_{1-8} alkoxycarbonyl group, or [3] a C_{1-8} alkylsulfonyl group,

(16) a 5- to 14-membered heteroaryloxy group,

(17) a 4- to 10-membered heterocycloalkylcarbonyloxy group,

(18) a $(C_{1-8}$ alkyl$)_{m811}$-aminosulfonyloxy group,

m811: 0~2,

(19) a C_{1-8} alkyl thio group which may be substituted by [1] $(C_{1-8}$ alkyl$)_{m812}$-amino group(s), [2] hydroxy group(s) or [3] hydroxycarbonyl group(s),

m812: 0~2,

(20) a C_{1-8} alkylsulfonyl group which may be substituted by one or more R^{8G},

R^{8G}: [1] a hydroxycarbonyl group, [2] a hydroxy group, or [3] a $(C_{1-8}$ alkyl$)_{m813}$-amino group,

m813: 0~2,

(21) a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyloxy group which may be substituted by C_{1-8} alkyl group(s),

(22) a C_{2-8} alkenyloxy group, and

(23) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s);

R^9 is selected from the group consisting of:

(1) a hydrogen atom,

(2) a C_{1-8} alkyl group which may be substituted by one or more R^{9A},

R^{9A}: [1] a C_{3-8} cycloalkyl group, [2] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9A1}, [3] a hydroxy group, [4] a C_{1-8} alkoxy group, or [5] a hydroxycarbonyl group,

R^{9A1}: [1] a C_{1-8} alkyl group, [2] a C_{3-8} cycloalkyl group, or [3] a 4- to 10-membered heterocycloalkyl group,

(3) a C_{2-8} alkenyl group which may be substituted by one or more R^{9B},

R^{9B}: [1] a $(C_{1-8}$ alkyl$)_{m9a}$-amino group, [2] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9B1},

R^{9B1}: [1] a C_{3-8} cycloalkyl group, or [2] a 4- to 10-membered heterocycloalkyl group,

m9a: 0~2,

(4) a C_{2-8} alkynyl group which may be substituted by one or more R^{9C},

R^{9C}: [1] a C_{1-8} alkoxy group, [2] a $(C_{1-8}$ alkyl$)_{m9b}$-amino group which may be substituted by C_{6-10} aryl group(s), [3] a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9C1}, [4] a C_{3-8} cycloalkyl group, [5] a hydroxy group, [6] a hydroxycarbonyl group, or [7] a C_{1-8} alkyloxycarbonyl group,

m9b: 0~2,

R^{9C1}: [1] a C_{3-8} cycloalkyl group, [2] a 4- to 10-membered heterocycloalkyl group, or [3] an oxo group,

(5) a C_{3-8} cycloalkyl group,

(6) a 4- to 10-membered heterocycloalkyl group which may be substituted by one or more R^{9D},

R^{9D}: [1] a C_{1-8} alkyl group which may be substituted by 4- to 10-membered heterocycloalkyl group(s), [2] a C_{3-8} cycloalkyl group, [3] a 4- to 10-membered heterocycloalkyl group, or [4] a C_{1-6} alkylsulfonyl group, or [5] a C_{1-8} alkoxycarbonyl group,

(7) a C_{6-10} aryl group which may be substituted by one or more R^{9E},

R^{9E}: [1] a halogen atom, [2] a hydroxy group, [3] a hydroxycarbonyl group, or [4] a C_{1-8} alkyl group which may be substituted by hydroxy group(s), or [5] a C_{1-8} alkoxy group,

(8) a 5- to 14-membered heteroaryl group which may be substituted by C_{1-8} alkyl group(s),

(9) a cyano group,

(10) a C_{1-8} alkanoyl group,

(11) a 4- to 10-membered nitrogen-containing heterocycloalkylcarbonyl group which may be substituted by C_{1-8} alkyl group(s),

(12) a halogen atom,

(13) a $(C_{1-8}$ alkyl$)_{m9c}$- amino group,

m9c: 0~2,

(14) a C_{1-8} alkylcarbonyl(C_{0-8} alkyl)amino group which may be substituted by $(C_{1-8}$ alkyl$)_{m9d}$- amino group(s),

m9d: 0~2,

(15) a C_{1-8} alkylsulfonyl(C_{0-8} alkyl)amino group,

(16) a $(C_{1-8}$ alkyl$)_{m9e}$- aminosulfonyl(C_{0-8} alkyl)amino group,

m9e: 0~2,

(17) a nitro group,

(18) a hydroxy group,

(19) a C_{1-8} alkoxy group which may be substituted by one or more R^{9G},

R^{9G}: [1] a hydroxy group, [2] a hydroxycarbonyl group, [3] a C_{6-10} aryl group which may be substituted by C_{1-8} alkoxy group(s), [4] a $(C_{1-8}$ alkyl$)_{m9g1}$-amino group, [5] a C_{1-8} alkoxy group which may be substituted by one or more R^{9G1}, [6] a 5- to 14-membered heteroaryl group, or [7] a 4- to 10-membered heterocycloalkyloxy group which may be substituted by C_{1-8} alkyl group(s),

m9g1: 0~2,

R^{9G1}: [1] a C_{1-8} alkoxy group, or [2] a hydroxycarbonyl group,

(20) a 4- to 10-membered heterocycloalkyloxy group which may be substituted by [1] 4- to 10-membered heterocycloalkyl group(s), or [2] C_{1-8} alkoxycarbonyl group(s),

(21) a C_{1-8} alkylsulfonyloxy group which may be substituted by halogen atom(s),

(22) a C_{1-8} alkylthio group which may be substituted by $(C_{1-8}$ alkyl$)_{m9f}$- amino group(s),

m9f: 0~2,

(23) a C_{1-8} alkylsulfonyl group which may be substituted by $(C_{1-8}$ alkyl$)_{m9g}$-amino group(s),

m9g: 0~2,

(24) a (C_{1-8} alkyl)$_{m9h}$-aminosulfonyl group,

m9h: 0~2,

(25) a 4- to 10-membered nitrogen-containing heterocycloalkylsulfonyl group which may be substituted by C_{1-8} alkyl group(s), and

(26) a hydroxycarbonyl group].

[Claim 2]

The composition according to Claim 1, wherein said dissolution aid is a surfactant.

[Claim 3]

The composition according to Claim 2, wherein said surfactant is a non-ionic or an anionic surfactant.

[Claim 4]

The composition according to Claim 2 or 3, wherein said surfactant is selected from a group consisting of monoalkyl sulfate, polyoxyl 40 stearate, sorbitan trioleate, polyoxyethylene (105) polyoxypropylene (5) glycol, polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, lauromacrogol, dioctyl sodium sulfosuccinate, sodium lauroylsarcosine, sodium dodecylbenzene sulfonate, and a mixture thereof.

[Claim 5]

The composition according to any one of Claims 2 to 4, wherein said composition further comprises an organic polymer.

[Claim 6]

The composition according to Claim 5, wherein said organic polymer is selected from a group consisting of a synthetic resin, a water soluble polymer, a gastric-soluble polymer, an enteric-soluble polymer, and a mixture thereof.

[Claim 7]

The composition according to Claim 5, wherein said organic polymer is a synthetic resin.

[Claim 8]

The composition according to any one of Claims 2 to 7, wherein said composition further comprises one or more additives which are selected from the following additive group A:

additive A: citric acid, fumaric acid, DL-malic acid, adipic acid, succinic acid, tartaric acid, lactic acid, maleic acid, sulfuric acid, phosphoric acid, sodium dehydroacetate, sodium stearyl fumarate, stearic L-ascorbate ester, L-aspartic acid, skimmed milk powder, aluminum lactate, ascorbic acid palmitate, aluminum sulfate, monobasic calcium phosphate, or acetyl tryptophan.

[Claim 9]

The composition according to any one of Claims 1 to 8, wherein said water solubility of the substance is less than 100 μg/mL at 25°C.

[Claim 10]

The composition according to any one of Claims 1 to 8, wherein A^1 to A^4, A^6, and A^7 are a carbon atom, A^5 is NH, R^3 is cyano, R^6 and $R^{6'}$ are both methyl for the substance.

[Claim 11]

The composition according to any one of Claims 1 to 8, wherein said substance is selected from

9-(4-isopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-9-prop-1-ynyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-cyclopropylethynyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(1-oxetan-3-yl-piperidin-4-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-8-(4-cyclopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-chloro-6,6-dimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-9-prop-1-ynyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6,9-trimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethyl-6,6-dimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-ethyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-6,6-dimethyl-11-oxo-8-(4-pyrrolidin-1-yl-piperidin-1-yl)-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-11-oxo-8-(4-pyrrolidin-1-yl-piperidin-1-yl)-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-ethynyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-9-propyl-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(1-isopropyl-piperidin-4-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-isopropyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(4-cyclobutyl-piperazin-1-yl)-9-cyclopropyl-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

8-(2-tert-butylamino-ethoxy)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-ethynyl-8-(4-methanesulfonyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

9-bromo-8-(4-cyclobutyl-piperazin-1-yl)-6,6-dimethyl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile;

6,6-dimethyl-8-(4-oxetan-3-yl-piperazin-1-yl)-11-oxo-9-propyl-6,11-dihydro-5H-

benzo[b]carbazole-3-carbonitrile; and

9-ethynyl-6,6-dimethyl-8-morpholin-4-yl-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile.

[Claim 12]

An orally administrable formulation comprising the composition described in any one of Claims 1 to 11.

[Claim 13]

A composition comprising

9-Ethyl-6,6-dimethyl-8-(4-morpholin-4-yl-piperidin-1-yl)-11-oxo-6,11-dihydro-5H-benzo[b]carbazole-3-carbonitrile or a salt thereof, a pharmaceutically acceptable carrier, and a dissolution aid, wherein said dissolution aid is selected from the following group.

Group:

citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, sodium stearyl fumarate, methacrylate copolymer LD, methyl cellulose, sodium lauryl sulfate, polyoxyl 40 stearate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, stearic L-ascorbate ester, L-aspartic acid, adipic acid, amino alkylmethacrylate copolymer E, propylene glycol alginate ester, casein, sodium caseinate, a carboxyvinyl polymer, carboxymethylethyl cellulose, powdered agar, guar gum, succinic acid, copolyvidone, cellulose acetate phthalate, tartaric acid, dioctyl sodium sulfosuccinate, zein, skimmed milk powder, sorbitan trioleate, lactic acid, aluminum lactate, ascorbic acid palmitate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate, polyoxyethylene (105) polyoxypropylene (5) glycol, polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, poly(sodium 4-styrene sulfonate), polyvinylacetal diethylaminoacetate, polyvinyl alcohol, maleic acid, methacrylate copolymer S, lauromacrogol, sulfuric acid, aluminum sulfate, phosphoric acid, monobasic calcium phosphate, sodium dodecylbenzene sulfonate, vinyl pyrrolidone · vinyl acetate copolymer, sodium lauroylsarcosine, acetyl tryptophan, sodium methyl sulfate, sodium ethyl sulfate, sodium butyl sulfate, sodium octyl sulfate, sodium decyl sulfate, sodium tetradecyl sulfate, sodium hexadecyl sulfate, and sodium octadecyl sulfate.

[Claim 14]

The composition according to claim 13, wherein said dissolution aid is selected from the following group.

Group:

citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, methacrylate copolymer LD, methyl cellulose, sodium lauryl sulfate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, stearic L-ascorbate ester, L-aspartic acid, adipic acid, propylene glycol alginate ester, casein, sodium caseinate, carboxymethylethyl cellulose, succinic acid, copolyvidone, dioctyl sodium sulfosuccinate, lactic acid, aluminum lactate, ascorbic acid palmitate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate,

polyoxyethylene hydrogenated castor oil 60, polyoxyl 35 castor oil, sodium polystyrene sulfonate, polyvinylacetal diethylaminoacetate, polyvinyl alcohol, methacrylate copolymer S, lauromacrogol, sulfuric acid, aluminum sulfate, sodium dodecylbenzene sulfonate, vinyl pyrrolidone · vinyl acetate copolymer, acetyl tryptophan, sodium decyl sulfate, sodium tetradecyl sulfate, and sodium octadecyl sulfate.

[Claim 15] The composition according to claim 14, wherein the dissolution aid which is selected from the following group.
Group:
citric acid, hydroxypropyl cellulose, hydroxypropylmethyl cellulose, methacrylic acid copolymer LD, methyl cellulose, sodium lauryl sulfate, purified shellac, sodium dehydroacetate, fumaric acid, DL-malic acid, L-aspartic acid, adipic acid, propylene glycol alginate ester, sodium caseinate, carboxymethylethyl cellulose, succinic acid, copolyvidone, dioctyl sodium sulfosuccinate, lactic acid, aluminum lactate, hydroxyethylmethyl cellulose, hydroxypropylmethyl cellulose acetate succinate, sodium polystyrene sulfonate, polyvinylacetal diethylaminoacetate, methacrylic acid copolymer S, sulfuric acid, aluminum sulfate, a vinyl pyrrolidone · vinyl acetate copolymer, and sodium decyl sulfate.