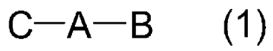
CLAIMS

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



wherein, A represents a chelating moiety capable of being coordinated to a radioactive metal ion, B represents an atomic group containing an albumin binding moiety, and C represents an atomic group containing a target molecule binding moiety,

B binds to a site of A, and

C binds to A at a site different from the site where B binds to A;

wherein the target molecule binding moiety has a structure to bind to a target molecule expressed in a cancer tissue, and the target molecule is a protein present on a cell membrane surface or present penetrating the cell membrane.

2. The compound according to claim 1, wherein

in the formula (1), A has a cyclic structure, the cyclic structure has two or more nitrogen atoms, and the nitrogen atoms are connected to each other across two or more adjacent carbon atoms, or A has a chain structure, the chain structure has two or more nitrogen atoms, and the nitrogen atoms are connected to each other across two or more adjacent carbon atoms,

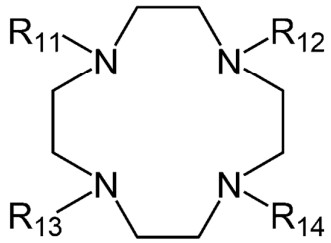
A has a nitrogen binding atomic group directly binding to any one of the nitrogen atoms constituting the cyclic structure or the chain structure,

the nitrogen binding atomic group contains one or more of a carboxy group, a phosphate group, an amide group, a benzene ring, and a pyridine ring, and

when B binds to the nitrogen binding atomic group, C binds to the nitrogen binding atomic group other than the atomic group to which B binds.

3. The compound according to claim 1 or 2, wherein in the formula (1), A has a structure derived from a compound represented by the following formula (A1):

(A1)

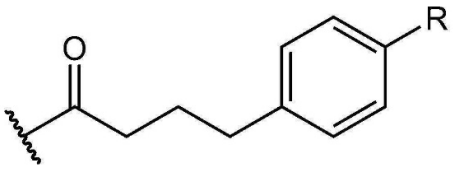


wherein, R_{11}, R_{12}, R_{13}, and R_{14} each independently represent any one of groups consisting of $-(CH_2)_pCOOH$, $-(CH_2)_pC_5H_5N$, $-(CH_2)_pPO_3H_2$, $-(CH_2)_pCONH_2$, $-(CHCOOH)(CH_2)_pCOOH$, and p represents an integer of 0 or more and 3 or less.

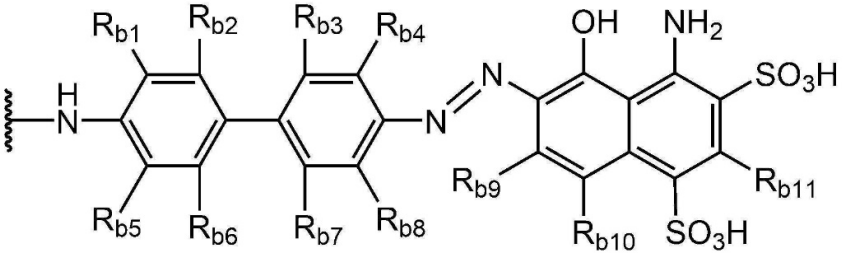
4. The compound according to any one of claims 1 to 3, wherein

in the formula (1), the albumin binding moiety has a structure derived from one or more of γ-glutamic acid, a phenylbutyric acid with or without a substituent, lipid, hematin, bilirubin, clofibric acid, clofibrate, carotenoid, a compound having a steroid skeleton, a compound having an ibuprofen skeleton, a linear or branched and saturated or unsaturated hydrocarbon having 13 or more and 20 or less carbon atoms, a cyanine dye, a dye having a sulfonate group, a diazo dye, a pentamethine cyanine dye, blue dextran, bromocresol green, Evans blue, and derivatives thereof or is an antibody or a peptide capable of binding to albumin.

5. The compound according to any one of claims 1 to 4, wherein in the formula (1), the albumin binding moiety has a structure represented by the following formula (B1) or (B2):



(B1)

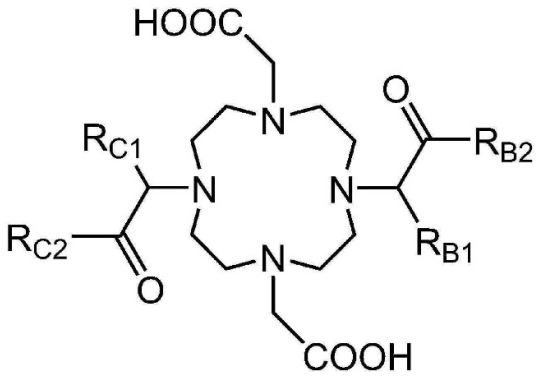


(B2)

in the formula (B1), R represents a hydrogen atom, a halogen atom, or an alkyl group having 1 or more and 5 or less carbon atoms, and a portion indicated by a wavy line is a binding moiety to another structure, and

in the formula (B2), R_{b1} to R_{b11} each independently represent a hydrogen atom, a halogen atom, a hydroxy group, a cyano group, an alkyl group having 1 or more and 6 or less carbon atoms with or without a substituent, or an alkoxy group having 1 or more and 6 or less carbon atoms with or without a substituent, and a portion indicated by a wavy line is a binding moiety to another structure.

6. The compound according to any one of claims 1 to 5, represented by the following formula (2):



(2)

wherein, R_{B1} represents an atomic group containing an albumin binding moiety, R_{C1} represents an atomic group containing a target molecule binding moiety, and R_{B2} and R_{C2} both

represent a hydroxy group, or

R_{B2} represents an atomic group containing an albumin binding moiety, R_{C2} represents an atomic group containing a target molecule binding moiety, and R_{B1} and R_{C1} both represent a hydrogen atom or each independently represent a carboxyalkyl group having 1 to 5 carbon atoms.

7. The compound according to any one of claims 1 to 6, which is used as a labeling precursor.

8. A radioactive labeled compound in which the compound according to any one of claims 1 to 7 is coordinated to an ion of a radioactive metal.

9. The radioactive labeled compound according to claim 8, wherein the radioactive metal is ^{44}Sc, ^{51}Cr, ^{57}Co, ^{58}Co, ^{60}Co, ^{59}Fe, ^{67}Ga, ^{68}Ga, ^{64}Cu, ^{67}Cu, ^{89}Sr, ^{89}Zr, ^{90}Y, ^{99m}Tc, ^{103}Ru, ^{111}In, ^{153}Sm, ^{165}Dy, ^{166}Ho, ^{177}Lu, ^{186}Re, ^{188}Re, ^{198}Au, ^{201}Tl, ^{197}Hg, ^{203}Hg, ^{212}Bi, ^{213}Bi, ^{212}Pb, ^{227}Th, or ^{225}Ac.

10. The radioactive labeled compound according to claim 8 or 9, wherein the radioactive metal is an α ray-emitting nuclide.

11. The radioactive labeled compound according to claim 8 or 9, wherein the radioactive metal is a β ray-emitting nuclide.