

subjects. The disclosure particularly pertains to bispecific, trispecific or multispecific B7-H3-binding molecules, including bispecific diabodies, BiTEs, bispecific antibodies, trivalent binding molecules, *etc.* that comprise: (i) such B7-H3-binding Variable Domains and (ii) a domain capable of binding to an epitope of a molecule present on the surface of an effector cell. The disclosure is also directed to pharmaceutical compositions that contain any of such B7-H3-binding molecules, and to methods involving the use of any of such B7-H3-binding molecules in the treatment of cancer and other diseases and conditions. The disclosure also particularly pertains to a molecule that comprises the human B7-H3 binding domain of a humanized anti-human B7-H3 antibody conjugated to at least one drug moiety (a “**B7-H3-ADC**”). The disclosure is also directed to pharmaceutical compositions that contain such **B7-H3-ADCs**, and to methods involving the use of any of such **B7-H3-ADCs** in the treatment of cancer and other diseases and conditions.

[0013] In detail, disclosed is a B7-H3-binding molecule that comprises a Variable Light Chain (VL) Domain and a Variable Heavy Chain (VH) Domain, wherein said Variable Heavy Chain Domain comprises a CDR_{H1} Domain, a CDR_{H2} Domain and a CDR_{H3} Domain, and said Variable Light Chain Domain comprises a CDR_{L1} Domain, a CDR_{L2} Domain, and a CDR_{L3} Domain, wherein at least three of said domains, at least four of said domains, at least five of said domains or all of said domains are selected from the group consisting of:

- (1) a CDR_{H1} Domain comprising the amino acid sequence of **SEQ ID NO:27**;
- (2) a CDR_{H2} Domain comprising the amino acid sequence of **SEQ ID NO:28**;
- (3) a CDR_{H3} Domain comprising the amino acid sequence of **SEQ ID NO:29**;
- (4) a CDR_{L1} Domain comprising the amino acid sequence of **SEQ ID NO:23**;
- (5) a CDR_{L2} Domain comprising the amino acid sequence of **SEQ ID NO:24**; and
- (6) a CDR_{L3} Domain comprising the amino acid sequence of **SEQ ID NO:25**.

[0014] The disclosure additionally concerns the example of such B7-H3-binding molecule that comprises said Variable Light Chain (VL) Domain that comprises a CDR_{L1} Domain, a CDR_{L2} Domain, and a CDR_{L3} Domain, and said Variable Heavy Chain (VH) Domain that comprises a CDR_{H1} Domain, a CDR_{H2} Domain and a CDR_{H3} Domain, wherein:

- (1) said CDR_{H1} Domain comprises the amino acid sequence of **SEQ ID NO:27**;
- (2) said CDR_{H2} Domain comprises the amino acid sequence of **SEQ ID NO:28**;

(3) said CDR_{H3} Domain comprises the amino acid sequence of **SEQ ID NO:29**.

[0015] The disclosure additionally concerns the example of such B7-H3-binding molecule that comprises said Variable Light Chain (VL) Domain that comprises a CDR_{L1} Domain, a CDR_{L2} Domain, and a CDR_{L3} Domain, and said Variable Heavy Chain (VH) Domain that comprises a CDR_{H1} Domain, a CDR_{H2} Domain and a CDR_{H3} Domain, wherein:

- (1) said CDR_{L1} Domain comprises the amino acid sequence of **SEQ ID NO:23**;
- (2) said CDR_{L2} Domain comprises the amino acid sequence of **SEQ ID NO:24**; and
- (3) said CDR_{L3} Domain comprises the amino acid sequence of **SEQ ID NO:25**.

[0016] The disclosure additionally concerns the example of such B7-H3-binding molecules wherein said Variable Heavy Chain (VH) Domain comprises the amino acid sequence of **SEQ ID NO:26** or **SEQ ID NO:31**.

[0017] The disclosure additionally concerns the example of such B7-H3-binding molecules wherein said Variable Light Chain (VL) Domain comprises the amino acid sequence of **SEQ ID NO:22** or **SEQ ID NO:30**.

[0018] The disclosure additionally concerns B7-H3-binding molecules that comprise a VL Domain and a VH Domain, wherein said VL Domain comprises the amino acid sequence of **SEQ ID NO:20**.

[0019] The disclosure additionally concerns B7-H3-binding molecules that comprise a VL Domain and a VH Domain, wherein said VH Domain comprises the amino acid sequence of **SEQ ID NO:21**.

[0020] The disclosure additionally concerns B7-H3-binding molecules that comprise a VL Domain and a VH Domain, wherein said VL Domain comprises the amino acid of **SEQ ID NO:20** and said VH Domain comprises the amino acid sequence of **SEQ ID NO:21**.

[0020a] In one aspect, the present disclosure refers to a B7-H3 binding molecule, wherein said B7-H3 binding molecule is an antibody, a diabody, or an epitope-binding fragment thereof, which is capable of binding to B7-H3, wherein said B7-H3 binding molecule comprises:

- (i) a humanized Variable Light Chain (VL) domain comprising the amino acid sequence of **SEQ ID NO:20**; and
- (ii) a humanized Variable Heavy Chain (VH) domain comprising the amino acid sequence of **SEQ ID NO:21**.

[0021] The disclosure further concerns the example of such B7-H3-binding molecules, wherein the molecule is an antibody or an epitope-binding fragment thereof. The disclosure also concerns the examples of such a B7-H3-binding molecule, wherein the molecule is a bispecific antibody or a diabody, especially a diabody, or diabody complex,

that comprises two, three, four or five polypeptide chains each having an N-terminus and a C-terminus in which such polypeptide chains are associated together via one or more covalent, and especially one or more covalent disulfide, bonds. The disclosure additionally concerns the example of such B7-H3-binding molecules wherein the molecule is a trivalent binding molecule, and especially wherein the trivalent binding molecule is a covalently bonded complex that comprises three, four, five, or more polypeptide chains. The disclosure further concerns the example of such a B7-H3-binding molecule, wherein the molecule comprises an Fc Domain. The disclosure additionally concerns the example of such B7-H3-binding molecules wherein the molecule is a diabody and comprises an Albumin-Binding Domain, and especially a deimmunized Albumin-Binding Domain.

[0022] The disclosure further concerns the examples of all such B7-H3-binding molecules that additionally comprise an Fc Domain, and especially wherein the Fc Domain is a variant Fc Domain that comprises one or more amino acid modifications that reduces the affinity of the variant Fc Domain for an FcγR and/or enhances the serum half-life of the B7-H3-binding molecule, and more particularly, wherein the modifications comprise at least one substitution selected from the group consisting of:

- (a) L234A;
- (b) L235A;
- (c) L234A and L235A;
- (d) M252Y; M252Y and S254T;
- (e) M252Y and T256E;
- (f) M252Y, S254T and T256E; and
- (g) K288D and H435K;

wherein the numbering is that of the EU index as in Kabat.

[0023] The disclosure further concerns the example of such B7-H3-binding molecules, wherein the molecule is bispecific, and particularly concerns the example wherein the molecule comprises two epitope-binding sites capable of immunospecific binding to an epitope of B7-H3 and two epitope-binding sites capable of immunospecific binding to an epitope of a molecule present on the surface of an effector cell, or the example wherein the molecule comprises one epitope-binding site capable of immunospecific binding to an epitope of B7-H3 and one epitope-binding site capable of

immunospecific binding to an epitope of a molecule present on the surface of an effector cell.

[0024] The disclosure additionally concerns the example of such B7-H3 binding molecules wherein the molecule is a trivalent binding molecule, and particularly concerns the examples wherein the molecule comprises, one epitope-binding site capable of immunospecific binding to an epitope of B7-H3, one epitope-binding site capable of immunospecific binding to an epitope of a first molecule present on the surface of an effector cell; and one epitope-binding site capable of immunospecific binding to an epitope of a second molecule present on the surface of an effector cell, wherein such first and second molecules are not B7-H3.

[0025] The disclosure further concerns the example of such a B7-H3-binding molecule, wherein the molecule is capable of simultaneously binding to B7-H3 and to a second epitope, and particularly concerns the example wherein the second epitope is an epitope of a second molecule present on the surface of an effector cell (especially wherein the second epitope is an epitope of CD2, CD3, CD8, CD16, TCR, or NKG2D, and most particularly wherein the second epitope is an epitope of CD3). The disclosure additionally concerns the example of such B7-H3-binding molecules, wherein the effector cells is a cytotoxic T-cell or a Natural Killer (NK) cell. The disclosure additionally concerns the example of such B7-H3-binding molecules, wherein the molecule is also capable of binding a third epitope, and particularly concerns the example wherein the third epitope is an epitope of CD8. The disclosure further concerns the examples of such molecules wherein molecule mediates coordinated binding of a cell expressing B7-H3 and a cytotoxic T cell.

[0026] The disclosure further provides pharmaceutical compositions comprising an effective amount of any of the above-described B7-H3-binding molecules and a pharmaceutically acceptable carrier, excipient or diluent.

[0026a] In another aspect, the present disclosure refers to a pharmaceutical composition that comprises an effective amount of the **B7-H3-ADC** as described herein, or the B7-H3 binding molecule as described herein, and a pharmaceutically acceptable carrier, excipient or diluent.

[0026b] In another aspect, the present disclosure refers to the **B7-H3-ADC** as described herein, the B7-H3 binding molecule as described herein, or the pharmaceutical composition as described herein for use in the treatment of cancer.

[0027] The disclosure is additionally directed to the use of any of the above-described B7-H3-binding molecules in the treatment of a disease or condition associated with or characterized by the expression of B7-H3, or in a method of treating a disease or condition characterized by the expression of B7-H3, particularly wherein the disease or condition associated with or characterized by the expression of B7-H3 is cancer, and more

D is a cytotoxic drug moiety;
LM is a Linker Molecule that covalently links **Ab** and **D**;
m is an integer between 0 and n and denotes the number of Linker Molecules of the **B7-H3-ADC**;
and
n is an integer between 1 and 10 and denotes the number of cytotoxic drug moieties covalently linked to the ADC.

[0029a] In another aspect, the present disclosure refers to an anti-B7-H3 antibody drug conjugate (**B7-H3-ADC**) that comprises the formula: **Ab-(LM)_m-(D)_n**, wherein:

Ab is a humanized B7-H3 antibody or B7-H3 binding fragment thereof that binds to B7-H3 and comprises:

- (i) the CDR_{L1} sequence RASESIYSYLA, the CDR_{L2} sequence NTKTLPE and the CDR_{L3} sequence QHHYGTPPWT in its Variable Light Chain (VL) domain, and
- (ii) the CDR_{H1} sequence SYGMS, the CDR_{H2} sequence TINSGGSNNTYY PDSLKG and the CDR_{H3} sequence HDGGAMDY in its Variable Heavy Chain (VH) domain;

D is a cytotoxic drug moiety comprising a duocarmycin cytotoxin;
LM comprises at least one bond or a Linker Molecule that covalently links Ab and D;
m is an integer between 0 and n and denotes the number of Linker Molecules of the **B7-H3-ADC**; and
n is an integer between 1 and 10 and denotes the number of cytotoxic drug moieties covalently linked to the **B7-H3-ADC** molecule.

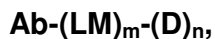
[0030] The disclosure further provides such **B7-H3-ADCs**, wherein the Linker Molecule **LM** is absent (*i.e.*, **m** = 0), and **B7-H3-ADCs** that possess more than one Linker Molecule **LM** (*i.e.*, **m** is an integer from 2 through **n**), each of which Linker Molecule **LM** covalently links a cytotoxic drug moiety **D** to the **Ab** of such **B7-H3-ADCs**. The disclosure further provides such **B7-H3-ADCs** whose **Ab** are covalently linked to more than one Linker Molecule **LM**, wherein all such Linker Molecules are identical. The cytotoxic drug moieties **D** that are covalently linked to the **Ab** of such **B7-H3-ADCs** may all be identical or may include 2, 3, 4, or more non-identical cytotoxic drug moieties **D**. The disclosure further provides such **B7-H3-ADCs** whose **Ab** are covalently linked to more than one Linker Molecule **LM**, wherein all such Linker Molecules are not identical. The cytotoxic drug moieties **D** that are covalently linked to the **Ab** of such **B7-H3-ADCs** may all be identical or may include 2, 3, 4, or more non-identical cytotoxic drug moieties **D**.

[0031] The disclosure further provides such **B7-H3-ADCs**, wherein:

- (A) (i) the humanized VL Domain comprises the amino acid sequence of **SEQ ID NO:99**, and
- (ii) the humanized VH Domain comprises the amino acid sequence of **SEQ ID NO:104**;
- or
- (B) (i) the humanized VL Domain comprises the amino acid sequence of **SEQ ID NO:20**, and
- (ii) the humanized VH Domain comprises the amino acid sequence of **SEQ ID NO:21**;
- or
- (C) (i) the humanized VL Domain comprises the amino acid sequence of **SEQ ID NO:30**, and

WHAT IS CLAIMED IS:

Claim 1. An anti-B7-H3 antibody drug conjugate (**B7-H3-ADC**) that comprises the formula:



wherein:

Ab is a humanized B7-H3 antibody or B7-H3 binding fragment thereof that binds to B7-H3 and comprises:

(i) the CDR_{L1} sequence RASESIYSYLA, the CDR_{L2} sequence NTKTLPE and the CDR_{L3} sequence QHHYGTPPWT in its Variable Light Chain (VL) domain, and

(ii) the CDR_{H1} sequence SYGMS, the CDR_{H2} sequence TINSGGSENTYY PDSLKG and the CDR_{H3} sequence HDGGAMDY in its Variable Heavy Chain (VH) domain;

D is a cytotoxic drug moiety comprising a duocarmycin cytotoxin;

LM comprises at least one bond or a Linker Molecule that covalently links Ab and D;

m is an integer between 0 and n and denotes the number of Linker Molecules of the **B7-H3-ADC**;

and

n is an integer between 1 and 10 and denotes the number of cytotoxic drug moieties covalently linked to the **B7-H3-ADC** molecule.

Claim 2. The **B7-H3-ADC** of claim 1, wherein said Ab comprises:

(i) a humanized Variable Light Chain (VL) domain comprising the amino acid sequence of **SEQ ID NO:20**; and

(ii) a humanized Variable Heavy Chain (VH) domain comprising the amino acid sequence of **SEQ ID NO:21**.

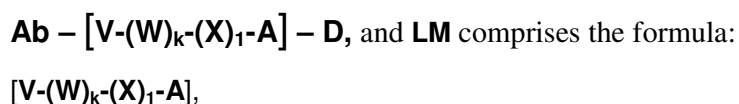
Claim 3. The **B7-H3-ADC** of claim 1 or claim 2, wherein said **Ab** further comprises an Fc domain of a human IgG.

- Claim 4. The **B7-H3-ADC** of claim 3, wherein said human IgG is a human IgG1, IgG2, IgG3, or IgG4.
- Claim 5. The **B7-H3-ADC** of claim 3 or claim 4, wherein said Fc Domain is a variant Fc Domain that comprises:
- (a) one or more amino acid modifications that reduces the affinity of the variant Fc Domain for an Fc γ R; and/or
 - (b) one or more amino acid modifications that enhances the serum half-life of the variant Fc Domain.
- Claim 6. The **B7-H3-ADC** of claim 5, wherein said modifications that reduce the affinity of the variant Fc Domain for an Fc γ R comprise the substitution of L234A; L235A; or L234A and L235A, wherein the numbering is that of the EU index as in Kabat.
- Claim 7. The **B7-H3-ADC** of claim 5 or claim 6, wherein said modifications that enhance the serum half-life of the variant Fc Domain comprise the substitution of M252Y; M252Y and S254T; M252Y and T256E; M252Y, S254T and T256E; or K288D and H435K, wherein the numbering is that of the EU index as in Kabat.
- Claim 8. The **B7-H3-ADC** of any one of claims 1-7, wherein at least one of said **LM** moieties is a Linker Molecule.
- Claim 9. The **B7-H3-ADC** of claim 8, wherein said **LM** Linker Molecule comprises a cleavable linker.
- Claim 10. The **B7-H3-ADC** of claim 9, wherein said cleavable linker is a peptidic linker.
- Claim 11. The **B7-H3-ADC** of claim 10, wherein said peptidic linker is a valine-citrulline dipeptide linker.
- Claim 12. The **B7-H3-ADC** of any one of claims 9-11, wherein said **LM** Linker Molecule further comprises a self-eliminating spacer between the cleavable linker and **D**.

Claim 13. The **B7-H3-ADC** of claim 12, wherein said self-eliminating spacer comprises a para-aminobenzyloxycarbonyl moiety.

Claim 14. The **B7-H3-ADC** of any one of claims 9-13, wherein said Linker Molecule further comprises a maleimide linker moiety between the cleavable linker and **Ab**.

Claim 15. The **B7-H3-ADC** of claim 8, wherein said conjugate comprises the formula:



wherein:

V is a cleavable linker,

(W)_k(X)₁A is an elongated, self-eliminating spacer system, that self-eliminates via a 1,(4+2n)-elimination,

W and **X** are each a 1,(4+2n) electronic cascade spacer, being the same or different,

A is either a spacer group of formula **(Y)_m**, wherein **Y** is a 1,(4+2n) electronic cascade spacer, or a group of formula **U**, being a cyclisation elimination spacer,

k, 1 and m are independently an integer of 0 (included) to 5 (included),

n is an integer of 0 (included) to 10 (included),

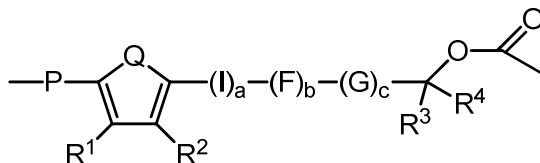
with the provisos that:

when **A** is **(Y)_m**: then $k+l+m \geq 1$, and

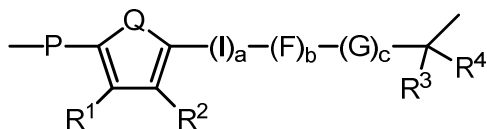
if $k+l+m=1$, then $n>1$;

when **A** is **U**: then $k+1 \geq 1$.

W, **X**, and **Y** are independently selected from compounds having the formula:



or the formula:

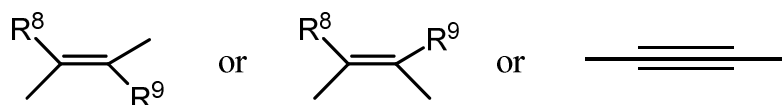


wherein: Q is $-R^5C=CR^6-$, S, O, NR^5 , $-R^5C=N-$, or $-N=CR^5-$

P is NR^7 , O or S

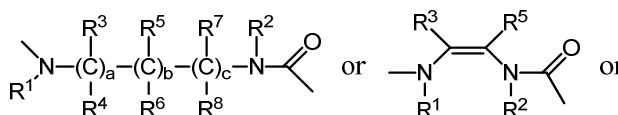
a, b, and c are independently an integer of 0 (included) to 5 (included);

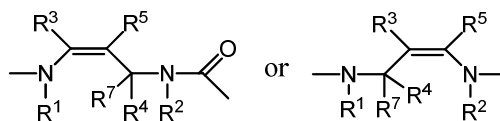
I, F and G are independently selected from compounds having the formula:



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , and R^9 independently represent H, C_{1-6} alkyl, C_{3-20} heterocyclyl, C_{5-20} aryl, C_{1-6} alkoxy, hydroxy (OH), amino (NH_2), mono-substituted amino (NR_xH), di-substituted amino ($NR_x^1R_x^2$), nitro (NO_2), halogen, CF_3 , CN, $CONH_2$, SO_2Me , $CONHMe$, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy ($COOH$), carboxylate ($COOR_x$), sulphony ($S(=O)_2OH$), sulphonate ($S(=O)_2OR_x$), sulphonyl ($S(=O)_2R_x$), sulphixy ($S(=O)OH$), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and phosphate ($OP(=O)(OR_x)_2$), where R_x , R_x^1 and R_x^2 are independently selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or a C_{5-20} aryl group, two or more of the substituents R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , or R^9 optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures;

U is selected from compounds having the formula:





wherein:

a, b and c are independently selected to be an integer of 0 or 1;
provided that $a + b + c = 2$ or 3;

R^1 and/or R^2 independently represent H, C1-6 alkyl, the alkyl being optionally substituted with one or more of the following groups: hydroxy (OH), ether (OR_x), amino (NH_2), mono-substituted amino (NR_xH), disubstituted amino ($NR_x^1R_x^2$), nitro (NO_2), halogen, CF_3 , CN, $CONH_2$, SO_2Me , $CONHMe$, cyclic C₁₋₅ alkylamino, imidazolyl, C₁₋₆ alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy ($COOH$), carboxylate ($COOR_x$), sulphony ($S(=O)_2OH$), sulphonate ($S(=O)_2OR_x$), sulphonyl ($S(=O)_2R_x$), sulphixy ($S(=O)OH$), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and phosphate ($OP(=O)(OR_x)_2$), where R_x , R_x^1 and R_x^2 are selected from a C₁₋₆ alkyl group, a C₃₋₂₀ heterocyclyl group or a C₅₋₂₀ aryl group; and

R^3 , R^4 , R^5 , R^6 , R^7 and R^8 independently represent H, C₁₋₆ alkyl, C₃₋₂₀ heterocyclyl, C₅₋₂₀ aryl, C₁₋₆ alkoxy, hydroxy (OH), amino (NH_2), mono-substituted amino (NR_xH), disubstituted amino ($NR_x^1R_x^2$), nitro (NO_2), halogen, CF_3 , CN, $CONH_2$, SO_2Me , $CONHMe$, cyclic C₁₋₅ alkylamino, imidazolyl, C₁₋₆ alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy ($COOH$), carboxylate ($COOR_x$), sulphony ($S(=O)_2OH$), sulphonate ($S(=O)_2OR_x$), sulphonyl ($S(=O)_2R_x$), sulphixy ($S(=O)OH$), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and phosphate ($OP(=O)(OR_x)_2$), where R_x , R_x^1 and R_x^2 are selected from a C₁₋₆ alkyl group, a C₃₋₂₀ heterocyclyl group or a C₅₋₂₀ aryl group, and two or more of the substituents R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , or R^8 are optionally connected to one another to form one or more aliphatic or aromatic cyclic structures.

Claim 16. The **B7-H3-ADC** of claim 15, wherein said **LM** linker molecule comprises:

(1) p-aminobenzyloxycarbonyl-p-aminobenzyloxycarbonyl;

- (2) p-aminobenzoyloxycarbonyl-p-aminobenzoyloxycarbonyl-p-aminobenzoyloxycarbonyl;
- (3) p-aminocinnamoyloxycarbonyl;
- (4) p-aminocinnamoyloxycarbonyl-p-aminobenzoyloxycarbonyl;
- (5) p-amino-benzoyloxycarbonyl-p-aminocinnamoyloxycarbonyl;
- (6) p-aminocinnamoyloxycarbonyl-p-aminocinnamoyloxycarbonyl;
- (7) p-aminophenylpentadienoyloxycarbonyl;
- (8) p-aminophenylpentadienoyloxycarbonyl-p-aminocinnamoyloxycarbonyl;
- (9) p-aminophenylpentadienoyloxycarbonyl-p-aminobenzoyloxycarbonyl;
- (10) p-aminophenylpentadienoyloxycarbonyl-p-aminophenylpentadienoyloxycarbonyl;
- (11) p-aminobenzoyloxycarbonyl(methylamino)ethyl(methylamino)carbonyl;
- (12) p-aminocinnamoyloxycarbonyl(methylamino)ethyl(methylamino)carbonyl;
- (13) p-aminobenzoyloxycarbonyl-p-aminobenzoyloxycarbonyl(methylamino)ethyl(methylamino)carbonyl;
- (14) p-aminocinnamoyloxycarbonyl-p-aminobenzoyloxycarbonyl(methylamino)ethyl(methylamino)carbonyl;
- (15) p-aminobenzoyloxycarbonyl-p-aminocinnamoyloxycarbonyl(methylamino)ethyl(methylamino)-carbonyl;
- (16) p-aminocinnamoyloxycarbonyl-p-aminocinnamoyloxycarbonyl(methylamino)ethyl(methylamino)carbonyl;
- (17) p-aminobenzoyloxycarbonyl-p-aminobenzyl;
- (18) p-aminobenzoyloxycarbonyl-p-aminobenzoyloxycarbonyl -p-aminobenzyl;
- (19) p-aminocinnamyl;
- (20) p-aminocinnamoyloxycarbonyl-p-aminobenzyl;
- (21) p-aminobenzoyloxycarbonyl-p-aminocinnamyl;
- (22) p-amino-cinnamoyloxycarbonyl-p-aminocinnamyl;
- (23) p-aminophenylpentadienyl;
- (24) p-aminophenylpentadienoyloxycarbonyl-p-aminocinnamyl;

(25) p-aminophenylpentadienyloxycarbonyl-p-aminobenzyl;

or

(26) p-aminophenylpentadienyloxycarbonyl-p-aminophenylpentadienyl.

Claim 17. The **B7-H3-ADC** of any one of claims 8-16, wherein said **LM** Linker Molecule is conjugated to the side chain of an amino acid of a polypeptide chain of **Ab** and binds the **Ab** to a molecule of the cytotoxic drug moiety **D**.

Claim 18. The **B7-H3-ADC** of claim 1, wherein said duocarmycin cytotoxin is selected from the group consisting of: duocarmycin A, duocarmycin B1, duocarmycin B2, duocarmycin C1, duocarmycin C2, duocarmycin D, duocarmycin SA, CC-1065, adozelesin, bizelesin, carzelesin (U-80244), *seco*-duocarmycin and spiro-duocarmycin (DUBA).

Claim 19. The **B7-H3-ADC** of claim 18, wherein said duocarmycin cytotoxin is *seco*-duocarmycin.

Claim 20. The **B7-H3-ADC** of any of claims 1-19, wherein said LM Linker Molecule is covalently linked to the Ab via reduced inter-chain disulfides.

Claim 21. A B7-H3 binding molecule, wherein said B7-H3 binding molecule is an antibody, a diabody, or an epitope-binding fragment thereof, which is capable of binding to B7-H3, wherein said B7-H3 binding molecule comprises:

(i) a humanized Variable Light Chain (VL) domain comprising the amino acid sequence of **SEQ ID NO:20**; and

(ii) a humanized Variable Heavy Chain (VH) domain comprising the amino acid sequence of **SEQ ID NO:21**.

Claim 22. The B7-H3 binding molecule of claim 21, which further comprises an Fc Domain of a human IgG.

- Claim 23. The B7-H3 binding molecule of claim 22, wherein said human IgG is a human IgG1, IgG2, IgG3, or IgG4.
- Claim 24. The B7-H3 binding molecule of claim 22 or claim 23, wherein said Fc Domain is a variant Fc Domain that comprises:
- (a) one or more amino acid modifications that reduces the affinity of the variant Fc Domain for an Fc γ R; and/or
 - (b) one or more amino acid modifications that enhances the serum half-life of the variant Fc Domain.
- Claim 25. The B7-H3 binding molecule of claim 24, wherein said modifications that reduce the affinity of the variant Fc Domain for an Fc γ R comprise the substitution of L234A; L235A; or L234A and L235A, wherein the numbering is that of the EU index as in Kabat.
- Claim 26. The B7-H3 binding molecule of claim 24 or claim 25, wherein said modifications that enhance the serum half-life of the variant Fc Domain comprise the substitution of M252Y; M252Y and S254T; M252Y and T256E; M252Y, S254T and T256E; or K288D and H435K, wherein the numbering is that of the EU index as in Kabat.
- Claim 27. A pharmaceutical composition that comprises an effective amount of the **B7-H3-ADC** of any one of claims 1-20, or the B7-H3 binding molecule of any one of claims 21-26, and a pharmaceutically acceptable carrier, excipient or diluent.
- Claim 28. The **B7-H3-ADC** of any one of claims 1-20, the B7-H3 binding molecule of any one of claims 21-26, or the pharmaceutical composition of claim 27 for use in the treatment of cancer.
- Claim 29. The **B7-H3-ADC**, the B7-H3 binding molecule, or the pharmaceutical composition of claim 28, wherein said cancer is selected from the group consisting of: an adrenal gland tumor, an AIDS-associated cancer, an alveolar soft part sarcoma, an astrocytic tumor, an adrenal cancer, a bladder cancer, a bone cancer, a brain and spinal cord cancer, a metastatic brain tumor, a B-cell cancer, a breast cancer, a carotid body tumors, a cervical

cancer, a chondrosarcoma, a chordoma, a chromophobe renal cell carcinoma, a clear cell carcinoma, a colon cancer, a colorectal cancer, a cutaneous benign fibrous histiocytoma, a desmoplastic small round cell tumor, an ependymoma, a Ewing's tumor, an extraskeletal myxoid chondrosarcoma, a fibrogenesis imperfecta ossium, a fibrous dysplasia of the bone, a gallbladder or bile duct cancer, a gastric cancer, a gestational trophoblastic disease, a germ cell tumor, a head and neck cancer, a glioblastoma, a hematological malignancy, a hepatocellular carcinoma, an islet cell tumor, a Kaposi's Sarcoma, a kidney cancer, a leukemia, an acute myeloid leukemia, a chronic lymphocytic leukemia, a chronic myeloid leukemia, a hairy cell leukemia, a liposarcoma/malignant lipomatous tumor, a liver cancer, a lymphoma, a Burkett's lymphoma, a diffuse large B cell lymphoma, a follicular lymphoma, a mantle cell lymphoma, a marginal zone lymphoma, a non-Hodgkin's lymphoma, a small lymphocytic lymphoma, a lung cancer, a non-small-cell lung cancer (NSCLC), a medulloblastoma, a melanoma, a meningioma, a mesothelioma pharyngeal cancer, a multiple endocrine neoplasia, a multiple myeloma, a myelodysplastic syndrome, a neuroblastoma, a neuroendocrine tumors, an ovarian cancer, a pancreatic cancer, a papillary thyroid carcinoma, a parathyroid tumor, a pediatric cancer, a peripheral nerve sheath tumor, a pheochromocytoma, a pituitary tumor, a prostate cancer, a posterior uveal melanoma, a renal cell carcinoma, a renal metastatic cancer, a rhabdoid tumor, a rhabdomyosarcoma, a sarcoma, a skin cancer, a small round blue cell tumor of childhood, a soft-tissue sarcoma, a squamous cell cancer, a squamous cell cancer of the head and neck (SCCHN), a stomach cancer, a synovial sarcoma, a testicular cancer, a thymic carcinoma, a thymoma, a thyroid cancer, a thyroid metastatic cancer, and a uterine cancer.

Claim 30. The method of claim 29, wherein the cancer is a prostate cancer.