CLAIMS

1. An antibody or antigen-binding fragment thereof, comprising:

   (i) a first binding moiety that binds to a conformational epitope of CD3, and

   (ii) a second binding moiety that binds to a second target other than CD3,

   wherein the first binding moiety and the second binding moiety are independently a single-chain Fv (scFv) or a Fab domain.

2. The antibody or antigen-binding fragment thereof of claim 1, wherein the first binding moiety comprises:

   one, two or three heavy chain complementarity determining regions (HCDR1, HCDR2 and/or HCDR3) contained within SEQ ID NOs: 3, 120, 124, 125, 201, 204, 7, 11, 21, 22, 23, 26, 27, 28, 29, 30, 80, 82, 83, 84, 85, 86, 119, 122, 126, 128, 131, 134, 136, 138, 139, 145, 195, 196, 197, 200, 202, 203, 205, 207, 208, 209, 210, 211, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232 or 315; and/or

   one, two or three light chain complementarity determining regions (LCDR1, LCDR2 and/or LCDR3) contained within SEQ ID NOs: 4, 198, 8, 12, 24, 25, 81, 87, 88, 89, 90, 91, 92, 93, 94, 95, 141, 146, 199, 206, 212, 213, 214, 215, 216, 217, 218, 219, 220, 233, 234 or 316.

3. The antibody or antigen-binding fragment thereof of claim 1 or 2, wherein the first binding moiety is an anti-CD3 scFv domain, and the second binding moiety is a Fab domain; or the first binding moiety is an anti-CD3 Fab domain, and the second binding moiety is a scFv domain; optionally

   (a) wherein the first binding moiety is linked to the second binding moiety directly or via a linker, optionally wherein the N-terminus of the first binding moiety is linked to the C-terminus of the second binding moiety via the linker; and/or

   (b) wherein the antibody or antigen-binding fragment thereof, comprises a first chain comprising, from N-terminus to C-terminus, a VH region from the second binding moiety, a CH1 region, a VH region from the first binding moiety and a VL region from the first binding moiety, optionally

(i) wherein the VH region from the first binding moiety and the VL region from the first binding moiety are directly linked or linked via a linker; optionally

wherein the linker is a linker comprising glycine and serine, *e.g.*, a $(GGGGS)_2$ linker; or

(ii) the antibody or antigen-binding fragment thereof further comprises a second chain comprising a VL region from the second binding moiety and a CL region; and/or

(c) wherein the antibody or antigen-binding fragment thereof further comprises a third binding moiety that binds to a third target other than CD3; optionally

(i) wherein the second target is the same as the third target; and/or

(ii) wherein the third binding moiety is a Fab domain; and/or

(d) wherein the first binding moiety comprises one or two or three of HCDR1, HCDR2 and HCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 132, 143, 144, 31~40, 121, 123, 127, 129, 130, 133, 135, 137, 140, 44, 45, 46, 50, 51, 52, 96~106, 182, 183, 184, 307, 308 and 309; and/or

one or two or three of LCDR1, LCDR2 and LCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 41, 42, 149, 43, 142, 47, 48, 49, 53, 54, 55, 107~118, 185, 186, 187, 310, 311 and 312; and/or

(e) wherein the first binding moiety comprises:

(i) a HCDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 132, 31, 140, 44, 50, 96, 97, 98, 182 and 307;

(ii) a HCDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 143, 32, 33, 34, 121, 123, 129, 45, 51, 99, 100, 101, 102, 183 and 308; and

(iii) a HCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 144, 35, 36, 37, 38, 39, 40, 127, 130, 133, 135, 137, 46, 52, 103, 104, 105, 106, 184 and 309; and/or

(f) wherein the first binding moiety comprises:

(i) a LCDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 41, 47, 53, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 185 and 310;

(ii) a LCDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 42, 48, 54, 117, 186 and 311; and

(iii) a LCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 149, 43, 142, 49, 55, 118, 187 and 312; and/or

(g) wherein the first binding moiety comprises:

(i) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 132, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 143, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 144;

(ii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35;

(iii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 36;

(iv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 37;

(v) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 38;

(vi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID

NO: 33, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35;

(vii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 39;

(viii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 121, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35;

(ix) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 123, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35;

(x) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 127;

(xi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 129, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 130;

(xii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 121, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 133;

(xiii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 135;

(xiv)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in

SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 137;

(xv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 140, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35;

(xvi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 34, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 40;

(xvii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 44, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 45, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 46;

(xviii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 50, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 51, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 52;

(xix) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 98, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 102, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 106;

(xx) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 99, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103;

(xxi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103;

(xxii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 97, a HCDR2 comprising an amino acid sequence as set forth in

SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103;

(xxiii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 101, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103;

(xxiv)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 104;

(xxv)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 105;

(xxvi)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 182, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 183, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 184; or

(xxvii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 307, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 308, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 309; and/or

(h) wherein the first binding moiety comprises:

(i) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 149;

(ii) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(iii) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 142;

(iv) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 47, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 48, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 49;

(v) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 53, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 54, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 55;

(vi) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 116, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(vii)a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(viii)a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 108, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(ix) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 109, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(x) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 110, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xi) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 111, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xii) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 112, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xiii) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 113, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xiv) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 114, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xv) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 115, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xvi) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 185, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 186, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 187; or

(xvii) a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 310, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 311, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 312.

4. The antibody or antigen-binding fragment thereof of any one of the preceding claims, wherein the first binding moiety comprises:

(i) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 132, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 143, and a HCDR3 comprising an amino acid sequence as set forth in

SEQ ID NO: 144, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 149;

(ii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(iii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 34, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 40, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(iv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 36, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(v) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 37, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(vi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 38, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(vii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 33, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(viii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 39, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(ix) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 121, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(x) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 123, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ

ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 127, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 129, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 130, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xiii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 121, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 133, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xiv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 135, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO:

137, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43;

(xvi)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 140, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 32, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 35, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 43; or

(xvii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 31, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 129, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 130, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 41, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 42, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 142; or

(xviii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 44, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 45, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 46, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 47, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 48, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 49;

(xix)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 50, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 51, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 52, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 53, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 54, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 55;

(xx) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 98, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 102, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 106, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 116, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxi) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 99, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 97, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxiii) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 101, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxiv) a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 104, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth

in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxv)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 105, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 107, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxvi)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 108, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxvii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 109, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxviii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 110, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxix)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ

ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 111, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxx)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 112, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxxi)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 113, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxxii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 114, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxxiii)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 96, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 100, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 103, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 115, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 117, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 118;

(xxxiv)a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 307, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 308, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 309, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 310, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 311, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 312.

5. The antibody or antigen-binding fragment thereof of any one of the preceding claims,

(i) wherein the first binding moiety comprises a VH region having an amino acid sequence as set forth in SEQ ID NOs: 3, 21, 22, 23, 26, 27, 28, 29, 30, 119, 120, 122, 124, 125, 126, 128, 131, 134, 136, 138, 139, 195, 196, 197, 200, 201, 202, 203, 204, 7, 11, 80, 82, 83, 84, 85, 86, 145, 205, 207, 208, 209, 210, 211, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232 or 315, or a homologous sequence thereof having at least 80% sequence identity to SEQ ID NOs: 3, 21, 22, 23, 26, 27, 28, 29, 30, 119, 120, 122, 124, 125, 126, 128, 131, 134, 136, 138, 139, 195, 196, 197, 200, 201, 202, 203, 204, 7, 11, 80, 82, 83, 84, 85, 86, 145, 205, 207, 208, 209, 210, 211, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232 or 315; and/or

(ii) wherein the first binding moiety comprises a VL region having an amino acid sequence as set forth in SEQ ID NOs: 4, 8, 12, 24, 25, 81, 87, 88, 89, 90, 91, 92, 93, 94, 95, 141, 146, 198, 199, 206, 212, 213, 214, 215, 216, 217, 218, 219, 220, 233, 234 or 316, or a homologous sequence thereof having at least 80% sequence identity to SEQ ID NOs: 4, 24, 25, 141, 198, 199, 8, 12, 81, 87, 88, 89, 90, 91, 92, 93, 94, 95, 146, 206, 212, 213, 214, 215, 216, 217, 218, 219, 220, 233, 234 or 316.

6. The antibody or antigen-binding fragment thereof of any one of the preceding claims, wherein the first binding moiety comprises a VH/VL amino acid sequence pair selected from the group consisting of SEQ ID NOs: 3/4, 21/24, 22/24, 23/24, 21/25, 26/24, 27/24, 28/24, 29/24, 30/24, 21/25, 119/198, 120/198, 122/198, 124/198, 125/198, 126/198, 128/198, 131/198, 134/198, 136/198, 138/198, 139/198, 128/141, 195/198, 196/198, 197/198, 195/199, 200/198, 201/198, 202/198, 203/198, 204/198, 7/8, 11/12, 80/81, 83/87, 84/87, 85/87, 86/87, 82/88, 82/89, 82/90, 82/91, 82/92, 82/93, 82/94, 82/95, 205/206, 208/212, 209/212, 210/212, 211/212, 207/213, 207/214, 207/215, 207/216, 207/217, 207/218, 207/219, 207/220, 221/233, 222/233, 223/233,

224/233, 225/233, 226/233, 227/233, 227/234, 228/233, 229/233, 230/233, 231/233, 232/233 and 315/316.

7. The antibody or antigen-binding fragment thereof of any one of the preceding claims,

(a) wherein the first binding moiety further comprises one or more amino acid residue substitutions or modifications yet retains specific binding affinity to CD3; optionally wherein at least one of the substitutions or modifications is within one or more of the CDR sequences of the VH region or VL region of the first binding moiety; and/or wherein at least one of the substitutions or modifications is within one or more of the non-CDR sequences of the VH region or VL region of the first binding moiety; and/or

(b) wherein the antibody or antigen-binding fragment thereof further comprises one or more non-natural amino acid (NNAA) substitution, optionally wherein the NNAA is capable of being conjugated; and/or

(c) wherein the antibody or antigen-binding fragment thereof is a chimeric, a humanized or a human antibody or an antigen-binding fragment thereof, a labelled antibody, a bivalent antibody, an anti-idiotypic antibody or a fusion protein; and/or

(d) wherein the antibody or antigen-binding fragment thereof further comprises an Fc region, optionally an Fc region of human immunoglobulin (Ig), or optionally an Fc region of human IgG; optionally wherein the Fc region is derived from human IgG1, IgG2, IgG3, or IgG4; optionally wherein both the first binding moiety and the third binding moiety are linked to the Fc region; and/or

(e) wherein the light chain is a λ light chain or a κ light chain; and/or

(f) wherein the second target is selected from the group consisting of GPRC5D, GD2, CD16a, CD33, CD38, CD45, CD123, CD146, CD228, CLL-1, FLT3, FLT3L, TAF1, TgPRF, HVCN1, IL-6R, IL-11R, IL17A, IL-23R, IL-33, ILDR2, LAP, TSLP, TREM-1, ANGPT2, APOE, IFNAR, CypA, DOG-1, NKp30, CSF-1R, CCR2, LRRC15, mesothelin, Dickkopf2, DLL3, HER-2, C10orf54, TrkA, MEKK1, KRAS, ERK, XPO1, mTORC1/2, PAK4, NAMPT, ATR, EGFR, FGFR, VEGF, LILRB (*e.g.*, LILRB1, LILRB2, LILRB3, LILRB4, LILRB5), c-MET, Her2, Her3, CTLA4, GITA, CD112R, CD2, CD7, CD16, CD20, CD24, CD27, CD30, CD34, CD37, CD39, CD70,

CD73, CD83, CD28, CD80 (B7-1), CD86 (B7-2), CD40, CD40L (CD154), CD47, SIRPα, CD122, CD137, CD137L, OX40 (CD134), OX40L (CD252), BCMA (*e.g.*, BCMA02), PSMA, CLDN18 (*e.g.*, CLDN18.2), NKG2C, 4-1BB, LIGHT, PVRIG, SLAMF7, HVEM, BAFFR, ICAM-1, 2B4, LFA-1, GITR, ICOS (CD278), ICOSLG (CD275), LAG3 (CD223), A2AR, B7-H3 (CD276), B7-H4 (VTCN1), B7-H5, BTLA (CD272), CD160, CTLA-4 (CD152), IDO (*e.g.*, IDO1, IDO2), ILT3, TDO, KIR, LAIR-1, NOX2, PD-1, PD-L1, PD-L2, TIM-3, VISTA, SIGLEC-7 (CD328), SIGLEC-9 (CD329), SIGLEC-15, TIGIT, PVR (CD155), TLR3, CLEC9A, DEC-205, STING, and TGFβ; optionally

wherein the second target is GPRC5D, GD2, LILRB4 or CD20; optionally

wherein the second binding moiety comprises

(i) one, two or three heavy chain complementarity determining regions (HCDR1, HCDR2 and/or HCDR3) contained within any one of the heavy chain variable (VH) region sequences selected from the group consisting of SEQ ID NOs: 1, 5, 9, 13, 14, 15, 16, 19, 147, 243, 282, 294 and 326; and/or

(ii) one, two or three light chain complementarity determining regions (LCDR1, LCDR2 and/or LCDR3) contained within any one of the light chain variable (VL) region sequences selected from the group consisting of SEQ ID NOs: 2, 6, 10, 17, 18, 20, 148, 247, 283, 295 and 327; optionally

i wherein the second binding moiety comprises at least one heavy or light chain complementarity determining region (CDR) comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 188, 189, 190, 191, 192, 193, 276, 277, 278, 279, 280, 281, 288, 289, 290, 291, 292, 293, 320, 321, 322, 323, 324 and 325; and/or

ii wherein the second binding moiety comprises one or two or three of HCDR1, HCDR2 and HCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID

NOs: 56, 57, 58, 62, 63, 64, 68, 69, 70, 74, 75, 76, 188, 189, 190, 276, 277, 278, 288, 289, 290, 320, 321 and 322; and/or

iii wherein the second binding moiety comprises one or two or three of LCDR1, LCDR2 and LCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 59, 60, 61, 65, 66, 67, 71, 72, 73, 77, 78, 79, 191, 192, 193, 279, 280, 281, 291, 292, 293, 323, 324 and 325; and/or

iv wherein the second binding moiety comprises:

i). a HCDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 56, 62, 68, 74, 188, 276, 288 and 320;

ii). a HCDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 57, 63, 69, 75, 189, 277, 289 and 321; and

iii). a HCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 58, 64, 70, 76, 190, 278, 290 and 322; and/or

v wherein the second binding moiety comprises:

i). a LCDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 59, 65, 71, 77, 191, 279, 291 and 323;

ii). a LCDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 60, 66, 72, 78, 192, 280, 292 and 324; and

iii). a LCDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 61, 67, 73, 79, 193, 281, 293 and 325; and/or

vi wherein the second binding moiety comprises:

i). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 56, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 57, and a HCDR3

comprising an amino acid sequence as set forth in SEQ ID NO: 58;

ii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 62, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 63, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 64;

iii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 68, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 69, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 70;

iv). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 74, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 75, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 76;

v). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 188, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 189, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 190;

vi). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 276, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 277, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 278;

vii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 288, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 289, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 290; or

viii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 320, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 321, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 322; and/or

vii wherein the second binding moiety comprises:

i). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 59, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 60, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 61;

ii). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 65, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 66, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 67;

iii). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 71, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 72, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 73;

iv). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 77, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 78, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 79;

v). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 191, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 192, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 193;

vi). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 279, a LCDR2 comprising an amino acid

sequence as set forth in SEQ ID NO: 280, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 281;

vii). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 291, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 292, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 293; or

viii). a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 323, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 324, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 325.

8. The antibody or antigen-binding fragment thereof of claim 7, wherein the second binding moiety comprises:

(i). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 56, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 57, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 58, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 59, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 60, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 61;

(ii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 62, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 63, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 64; a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 65, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 66, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 67;

(iii).a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 68, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 69, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 70, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO:

71, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 72, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 73;

(iv). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 74, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 75, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 76, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 77, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 78, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 79;

(v). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 188, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 189, and a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 190, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 191, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 192, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 193;

(vi). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 276, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 277, a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 278, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 279, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 280, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 281;

(vii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 288, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 289, a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 290, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 291, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 292, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 293; or

(viii). a HCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 320, a HCDR2 comprising an amino acid sequence as set forth in SEQ ID

NO: 321, a HCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 322, a LCDR1 comprising an amino acid sequence as set forth in SEQ ID NO: 323, a LCDR2 comprising an amino acid sequence as set forth in SEQ ID NO: 324, and a LCDR3 comprising an amino acid sequence as set forth in SEQ ID NO: 325.

9. The antibody or antigen-binding fragment thereof of claim 7 or 8,

    (i) wherein the second binding moiety comprises a VH region having an amino acid sequence as set forth in SEQ ID NOs: 1, 5, 9, 13, 14, 15, 16, 19, 147, 243, 282, 294 or 326, or a homologous sequence thereof having at least 80% sequence identity to SEQ ID NOs: 1, 5, 9, 13, 14, 15, 16, 19, 147, 243, 282, 294 or 326; and/or

    (ii) wherein the second binding moiety comprises a VL region having an amino acid sequence as set forth in SEQ ID NOs: 2, 6, 10, 17, 18, 20, 148, 247, 283, 295 or 327, or a homologous sequence thereof having at least 80% sequence identity to SEQ ID NOs: 2, 6, 10, 17, 18, 20, 148, 247, 283, 295 or 327.

10. The antibody or antigen-binding fragment thereof of any one of claims 7 to 9, wherein the second binding moiety comprises a VH/VL amino acid sequence pair selected from the group consisting of SEQ ID NOs: 1/2, 5/6, 9/10, 15/18, 13/18, 16/17, 14/18, 19/20, 147/148, 243/247, 282/283, 294/295, and 326/327.

11. The antibody or antigen-binding fragment thereof of any one of claims 7 to 10,

    (a) wherein the second binding moiety further comprises one or more amino acid residue substitutions or modifications yet retains specific binding affinity to the second target; optionally wherein at least one of the substitutions or modifications is within one or more of the CDR sequences of the VH region or VL region of the second binding moiety; and/or wherein at least one of the substitutions or modifications is within one or more of the non-CDR sequences of the VH region or VL region of the second binding moiety; and/or

    (b) wherein the antibody or antigen-binding fragment thereof further comprises one or more non-natural amino acid (NNAA) substitution; and/or

    (c) wherein the antibody or antigen-binding fragment thereof is linked to one or more conjugate moieties; optionally

(i) wherein the conjugate moiety comprises a clearance-modifying agent, a chemotherapeutic agent, a toxin, a radioactive isotope, a lanthanide, a detectable label, a DNA-alkylator, a topoisomerase inhibitor, a tubulin-binder, a purification moiety or other anticancer drugs; and/or

(ii) wherein the conjugate moiety is covalently attached either directly or via a linker; and/or

(iii) wherein the sequence of the second binding moiety is the same as the sequence of the third binding moiety.

12. A chimeric antigen receptor, comprising the antibody or antigen-binding fragment of any one of claims 1-11, a transmembrane region and an intracellular signal region; optionally

(i) the transmembrane region comprises a transmembrane region of CD3, CD4, CD8 or CD28; and/or

(ii) wherein the intracellular signal region is selected from the group consisting of: an intracellular signal region sequence of CD3, FcγRI, CD27, CD28, CD137, CD134, MyD88, CD40, CD278, TLRs, or a combination thereof; and/or

(iii) wherein the chimeric antigen receptor is grafted onto an allogeneic cell, an autologous cell or a xenogeneic cell, an immune effector cell, a T cell, a natural killer cell, a macrophage cell, or a tumor-infiltrating lymphocyte.

13. A pharmaceutical composition comprising the antibody or an antigen-binding fragment thereof of any one of claims 1 to 11, or the chimeric antigen receptor of claim 12, and one or more pharmaceutically acceptable carriers.

14. An isolated polynucleotide encoding the antibody or antigen-binding fragment thereof of any one of claims 1 to 11, and/or the chimeric antigen receptor of claim 12.

15. A vector comprising the isolated polynucleotide of claim 14.

16. A host expression system comprising the vector of claim 15 or having the polynucleotide of claim 14 integrated into genome thereof; optionally

wherein the host expression system is a microorganism, a yeast, or a mammalian cell, optionally, wherein the microorganism is selected from the group consisting of E. coli and B. subtilis, optionally wherein the yeast is Saccharomyces, and optionally

wherein the mammalian cell is selected from the group consisting of COS, CHO-S, CHO-K1, HEK-293, and 3T3 cells.

17. A virus comprising the vector of claim 15.

18. A method of expressing the antibody or antigen-binding fragment thereof of any one of claims 1 to 11 or the chimeric antigen receptor of claim 12, comprising culturing the host expression system of claim 16 under the condition at which the antibody or antigen-binding fragment of any one of claims 1 to 11 or the chimeric antigen receptor of claim 12 is expressed.

19. The antibody or antigen-binding fragment thereof of any one of claims 1 to 11 and/or the chimeric antigen receptor of claim 12 and/or the pharmaceutical composition of claim 13 for use in a method of

    (a) treating, preventing or alleviating a disease, disorder or condition in a subject, wherein the method comprises administering to the subject a therapeutically effective amount of the antibody or antigen-binding fragment thereof and/or the chimeric antigen receptor and/or the pharmaceutical composition, optionally

        (i) wherein the disease, disorder or condition is an immune disease, an autoimmune disease (*e.g.,* autoimmune encephalomyelitis, systemic lupus erythematosus, *etc.*), an inflammatory disease, a cancer or a neurological disease, further optionally

            i. the cancer is a solid tumor or hematologic tumor; and/or

            ii the disease, disorder or condition is selected from the group consisting of lung cancer (e.g., non-small-cell lung cancer (NSCLC), small cell lung cancer (SCLC), adenocarcinoma of the lung, or squamous cell carcinoma of the lung), peritoneal cancer, carcinoid cancer, bone cancer, pancreatic cancer, primitive neuroectodermal tumor, skin cancer, gallbladder cancer, cancer of the head or neck, squamous cell cancer, uterine cancer, ovarian cancer, rectal cancer, prostate cancer, bladder cancer (e.g., urothelial cancer), cancer of the anal region (e.g., anal squamous cell carcinoma), gastric or stomach cancer (e.g., gastrointestinal cancer), esophageal cancer, colon cancer, breast cancer, uterine cancer, liver cancer (e.g., hepatoblastoma,

hepatocellular carcinoma/hepatoma, or hepatic carcinoma), cholangiocarcinoma, sarcoma, colorectal cancer, carcinoma of the fallopian tubes, salivary gland carcinoma, carcinoma of the cervix, endometrial or uterine carcinoma, osteosarcoma, carcinoma of the vagina, carcinoma of the vulva, cancer of the esophagus, cancer of the small intestine, cancer of the endocrine system, cancer of the thyroid gland, cancer of the parathyroid gland, cancer of the adrenal gland, cancer of the nasopharynx, sarcoma of soft tissue, polycythemia vera, cancer of the urethra, cancer of the penis, cancer of the kidney or ureter (e.g., rhabdoid tumor of the kidney), cutaneous T-cell lymphoma, medulloblastoma, nephroblastoma, myelodysplastic syndrome, chronic and non-chronic myeloproliferative disorder, choroid plexus papilloma, renal cell carcinoma, carcinoma of the renal pelvis, neoplasms of the central nervous system (CNS), soft tissue sarcoma (e.g., rhabdomyosarcoma, fibrosarcoma, Kaposi's sarcoma), spinal axis tumors, glioma (e.g., ependymoma, astrocytoma, anaplastic astrocytoma, oligodendroglioma, eye cancer (e.g., retinoblastoma), brain stem glioma, or mixed glioma such as oligoastrocytoma), brain tumor (e.g., glioblastoma/glioblastoma multiforme (GBM), non-glioblastoma brain tumor, or meningioma), melanoma (e.g., cutaneous or intraocular melanoma), thrombocythemia, mesothelioma, mycosis fungoides, Sezary syndrome, idiopathic myelofibrosis, solitary plasmacytoma, vestibular schwannoma, Ewing’s sarcoma, chondrosarcoma, MYH associated polyposis, pituitary adenoma, pediatric cancers such as pediatric sarcomas (e.g., neuroblastoma, rhabdomyosarcoma, and osteosarcoma), hematological cancer, Hodgkin’s lymphoma, non-Hodgkin’s lymphoma, leukemia (e.g., lymphocytic/lymphoblastic leukemia), chronic or acute leukemia, mast cell leukemia, lymphocytic lymphomas, primary CNS lymphoma, chronic lymphocytic leukemia (CLL), acute lymphocytic leukemia (ALL), chronic myeloid leukemia (CML), acute myeloid leukemia (AML), chronic myelomonocytic leukemia (CMML),

chronic lymphoblastic leukemia, acute lymphoblastic leukemia, hairy cell leukemia (HCL), Burkitt's lymphoma (BL), multiple myeloma (e.g., relapsed or refractory multiple myeloma), T or B cell lymphoma, mantle cell lymphoma (MCL) (e.g., relapsed or refractory mantle cell lymphoma), malignant melanoma, diffuse large B cell lymphoma (DLBCL), DLBCL that results from follicular lymphoma, high-grade B-cell lymphoma, primary mediastinal large B-cell lymphoma, follicular lymphoma (FL), and primary mediastinal B-cell lymphoma; and/or

(ii) wherein the subject is human; and/or

(iii) wherein the administration is through a parenteral route comprising subcutaneous, intraperitoneal, intravenous, intramuscular, or intradermal injection; or a non-parenteral route comprising transdermal, oral, intranasal, intraocular, sublingual, rectal, or topical; and/or

(iv) the method further includes administering to the subject in need thereof an additional therapeutic agent; optionally

wherein the additional therapeutic agent is selected from the group consisting of: an active agent, an imaging agent, a cytotoxic agent, an angiogenesis inhibitor, a kinase inhibitor, a co-stimulation molecule agonist, a co-inhibition molecule blocker, an adhesion molecule blocker, an anti-cytokine antibody or functional fragment thereof, a detectable label or reporter, an antimicrobial, a gene editing agent, a beta agonist, an viral RNA inhibitor, a polymerase inhibitor, an interferon, and a microRNA; optionally

wherein the additional therapeutic agent is administered to the subject in need before, after or simultaneously with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(b) activating a T cell expressing CD3 or another target other than CD3 *in vivo* or *in vitro*, comprising contacting the T cell with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric

antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(c) modulating activity of CD3 or another target other than CD3 in a cell expressing CD3 or another target other than CD3, comprising exposing the cell to the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(d) promoting *in vivo* or *in vitro* processing of a second antigen by a CD3-expressing T cell, comprising contacting the CD3-expressing T cell with the antibody or antigen-binding fragment thereof of any of claims 1 to 6, wherein the antibody or antigen-binding fragment thereof is capable of binding to both the CD3-expressing T cell and the second antigen thereby bringing both in close proximity; or

(e) detecting presence or amount of CD3 or another target other than CD3 in a sample, comprising contacting the sample with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8, and determining the presence or the amount of CD3 or another target other than CD3 in the sample; or

(f) diagnosing a disease, disorder or condition related to CD3 or another target other than CD3 in a subject, comprising: a) contacting a sample obtained from the subject with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; b) determining presence or amount of CD3 or another target other than CD3 in the sample; and c) correlating the presence or the amount of CD3 or another target other than CD3 to existence or status of the disease, disorder or condition in the subject.

20. Use of an antibody or antigen-binding fragment thereof of any one of claims 1 to 11 and/or the chimeric antigen receptor of claim 12 and/or the pharmaceutical composition of claim 13 in the manufacture of a medicament for

(a) treating, preventing or alleviating a disease, disorder or condition in a subject, wherein the method comprises administering to the subject a

therapeutically effective amount of the antibody or antigen-binding fragment thereof and/or the chimeric antigen receptor and/or the pharmaceutical composition, optionally

(i) wherein the disease, disorder or condition is an immune disease, an autoimmune disease (*e.g.,* autoimmune encephalomyelitis, systemic lupus erythematosus, *etc.*), an inflammatory disease, a cancer or a neurological disease, further optionally

i. the cancer is a solid tumor or hematologic tumor; and/or

ii the disease, disorder or condition is selected from the group consisting of lung cancer (e.g., non-small-cell lung cancer (NSCLC), small cell lung cancer (SCLC), adenocarcinoma of the lung, or squamous cell carcinoma of the lung), peritoneal cancer, carcinoid cancer, bone cancer, pancreatic cancer, primitive neuroectodermal tumor, skin cancer, gallbladder cancer, cancer of the head or neck, squamous cell cancer, uterine cancer, ovarian cancer, rectal cancer, prostate cancer, bladder cancer (e.g., urothelial cancer), cancer of the anal region (e.g., anal squamous cell carcinoma), gastric or stomach cancer (e.g., gastrointestinal cancer), esophageal cancer, colon cancer, breast cancer, uterine cancer, liver cancer (e.g., hepatoblastoma, hepatocellular carcinoma/hepatoma, or hepatic carcinoma), cholangiocarcinoma, sarcoma, colorectal cancer, carcinoma of the fallopian tubes, salivary gland carcinoma, carcinoma of the cervix, endometrial or uterine carcinoma, osteosarcoma, carcinoma of the vagina, carcinoma of the vulva, cancer of the esophagus, cancer of the small intestine, cancer of the endocrine system, cancer of the thyroid gland, cancer of the parathyroid gland, cancer of the adrenal gland, cancer of the nasopharynx, sarcoma of soft tissue, polycythemia vera, cancer of the urethra, cancer of the penis, cancer of the kidney or ureter (e.g., rhabdoid tumor of the kidney), cutaneous T-cell lymphoma, medulloblastoma, nephroblastoma, myelodysplastic syndrome, chronic and non-chronic myeloproliferative disorder, choroid plexus papilloma, renal cell carcinoma, carcinoma of the renal

pelvis, neoplasms of the central nervous system (CNS), soft tissue sarcoma (e.g., rhabdomyosarcoma, fibrosarcoma, Kaposi's sarcoma), spinal axis tumors, glioma (e.g., ependymoma, astrocytoma, anaplastic astrocytoma, oligodendroglioma, eye cancer (e.g., retinoblastoma), brain stem glioma, or mixed glioma such as oligoastrocytoma), brain tumor (e.g., glioblastoma/glioblastoma multiforme (GBM), non-glioblastoma brain tumor, or meningioma), melanoma (e.g., cutaneous or intraocular melanoma), thrombocythemia, mesothelioma, mycosis fungoides, Sezary syndrome, idiopathic myelofibrosis, solitary plasmacytoma, vestibular schwannoma, Ewing's sarcoma, chondrosarcoma, MYH associated polyposis, pituitary adenoma, pediatric cancers such as pediatric sarcomas (e.g., neuroblastoma, rhabdomyosarcoma, and osteosarcoma), hematological cancer, Hodgkin's lymphoma, non-Hodgkin's lymphoma, leukemia (e.g., lymphocytic/lymphoblastic leukemia), chronic or acute leukemia, mast cell leukemia, lymphocytic lymphomas, primary CNS lymphoma, chronic lymphocytic leukemia (CLL), acute lymphocytic leukemia (ALL), chronic myeloid leukemia (CML), acute myeloid leukemia (AML), chronic myelomonocytic leukemia (CMML), chronic lymphoblastic leukemia, acute lymphoblastic leukemia, hairy cell leukemia (HCL), Burkitt's lymphoma (BL), multiple myeloma (e.g., relapsed or refractory multiple myeloma), T or B cell lymphoma, mantle cell lymphoma (MCL) (e.g., relapsed or refractory mantle cell lymphoma), malignant melanoma, diffuse large B cell lymphoma (DLBCL), DLBCL that results from follicular lymphoma, high-grade B-cell lymphoma, primary mediastinal large B-cell lymphoma, follicular lymphoma (FL), and primary mediastinal B-cell lymphoma; and/or

(ii) wherein the subject is human; and/or

(iii) wherein the administration is through a parenteral route comprising subcutaneous, intraperitoneal, intravenous, intramuscular, or intradermal injection; or a non-parenteral route comprising

transdermal, oral, intranasal, intraocular, sublingual, rectal, or topical; and/or

(iv) the method further includes administering to the subject in need thereof an additional therapeutic agent; optionally

wherein the additional therapeutic agent is selected from the group consisting of: an active agent, an imaging agent, a cytotoxic agent, an angiogenesis inhibitor, a kinase inhibitor, a co-stimulation molecule agonist, a co-inhibition molecule blocker, an adhesion molecule blocker, an anti-cytokine antibody or functional fragment thereof, a detectable label or reporter, an antimicrobial, a gene editing agent, a beta agonist, an viral RNA inhibitor, a polymerase inhibitor, an interferon, and a microRNA; optionally

wherein the additional therapeutic agent is administered to the subject in need before, after or simultaneously with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(b) activating a T cell expressing CD3 or another target other than CD3 *in vivo* or *in vitro*, comprising contacting the T cell with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(c) modulating activity of CD3 or another target other than CD3 in a cell expressing CD3 or another target other than CD3, comprising exposing the cell to the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; or

(d) promoting *in vivo* or *in vitro* processing of a second antigen by a CD3-expressing T cell, comprising contacting the CD3-expressing T cell with the antibody or antigen-binding fragment thereof of any of claims 1 to 6, wherein the antibody or antigen-binding fragment thereof is capable of binding to both the CD3-expressing T cell and the second antigen thereby bringing both in close proximity; or

(e) detecting presence or amount of CD3 or another target other than CD3 in a sample, comprising contacting the sample with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8, and determining the presence or the amount of CD3 or another target other than CD3 in the sample; or

(f) diagnosing a disease, disorder or condition related to CD3 or another target other than CD3 in a subject, comprising: a) contacting a sample obtained from the subject with the antibody or antigen-binding fragment thereof of any one of claims 1 to 6 and/or the chimeric antigen receptor of claim 7 and/or the pharmaceutical composition of claim 8; b) determining presence or amount of CD3 or another target other than CD3 in the sample; and c) correlating the presence or the amount of CD3 or another target other than CD3 to existence or status of the disease, disorder or condition in the subject.