

MULTIFUNCTIONAL MOLECULES THAT BIND TO T CELL RELATED CANCER CELLS AND USES THEREOF

CROSS-REFERENCE

[0001] This application claims the benefit of U.S. Provisional Application No. 63/014,920, filed on April 24, 2020 and U.S. Provisional Application No. 63/070,777, filed on August 26, 2020, each of which is incorporated herein by reference in its entirety.

BACKGROUND

[0002] Lymphomas are cancers that arise from lymphocytes. T cell lymphoma (TCL) is a lymphoma that arises from T cells; these account for approximately 7% of all non-Hodgkin's lymphomas in the United States. Common subtypes of TCL include: Peripheral T Cell Lymphoma, Not Otherwise Specified (PTCLNOS), Anaplastic Large Cell Lymphoma (ALCL), Angioimmunoblastic T Cell Lymphoma (AITL), and Cutaneous T Cell Lymphoma (CTCL). Each type of TCL has its own pathology and symptoms. Given the ongoing need for improved treatment of lymphomas such as TCLs, new compositions and treatments targeting lymphomas, e.g., TCLs, are highly desirable.

SUMMARY

[0002a] In one aspect, provided herein a multifunctional molecule comprising:

(a) a first antigen binding domain that binds to a T cell receptor beta chain constant domain (TRBC), and

(b) a second antigen binding domain that binds to NKp30,

wherein the TRBC is T cell receptor beta chain constant domain 1 (TRBC1) or T cell receptor beta chain constant domain 2 (TRBC2), and

wherein:

(A) when the TRBC is TRBC1, the first antigen binding domain comprises:

(i) a heavy chain variable region (VH) comprising a heavy chain complementarity determining region 1 (VHCDR1), a heavy chain complementarity determining region 2 (VHCDR2), and a heavy chain complementarity determining region 3 (VHCDR3) that comprise the sequences of SEQ ID NO: 8517, SEQ ID NO: 7355, and SEQ ID NO: 202, respectively, or the sequences of SEQ ID NO: 200, SEQ ID NO: 7355, and SEQ ID NO: 202, respectively; and/or

(ii) a light chain variable region (VL) comprising a light chain complementarity determining region 1 (VLCDR1), a light chain complementarity determining region 2 (VLCDR2), and a light chain complementarity determining region 3 (VLCDR3) that comprise the sequences of:

SEQ ID NO: 223, SEQ ID NO: 224, and SEQ ID NO: 8210, respectively;

SEQ ID NO: 8673, SEQ ID NO: 224, and SEQ ID NO: 8674, respectively;
SEQ ID NO: 8676, SEQ ID NO: 224, and SEQ ID NO: 8674, respectively;
SEQ ID NO: 8677, SEQ ID NO: 224, and SEQ ID NO: 225, respectively;
SEQ ID NO: 8678, SEQ ID NO: 224, and SEQ ID NO: 225, respectively;
SEQ ID NO: 8679, SEQ ID NO: 224, and SEQ ID NO: 225, respectively; or
SEQ ID NO: 8680, SEQ ID NO: 224, and SEQ ID NO: 225, respectively; and
(B) when the TRBC is TRBC2, the first antigen binding domain comprises:
(1)(i) a VH comprising a VHCDR1, a VHCDR2, and a VHCDR3 that comprise the sequences
of:

SEQ ID NO: 8272, SEQ ID NO: 8044, and SEQ ID NO: 8285, respectively;
SEQ ID NO: 8272, SEQ ID NO: 8044, and SEQ ID NO: 8296, respectively;
SEQ ID NO: 7394, SEQ ID NO: 201, and SEQ ID NO: 7396, respectively;
SEQ ID NO: 7346, SEQ ID NO: 201, and SEQ ID NO: 7398, respectively;
SEQ ID NO: 7346, SEQ ID NO: 201, and SEQ ID NO: 7400, respectively;
SEQ ID NO: 7401, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7405, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7407, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7422, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7427, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7430, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 7401, SEQ ID NO: 8260, and SEQ ID NO: 8043, respectively;
SEQ ID NO: 7401, SEQ ID NO: 8044, and SEQ ID NO: 8045, respectively;
SEQ ID NO: 7401, SEQ ID NO: 8044, and SEQ ID NO: 8046, respectively;
SEQ ID NO: 7401, SEQ ID NO: 8044, and SEQ ID NO: 8047, respectively;
SEQ ID NO: 8041, SEQ ID NO: 8260, and SEQ ID NO: 8043, respectively;
SEQ ID NO: 8041, SEQ ID NO: 8044, and SEQ ID NO: 8045, respectively;
SEQ ID NO: 8041, SEQ ID NO: 8044, and SEQ ID NO: 8046, respectively;
SEQ ID NO: 8041, SEQ ID NO: 8044, and SEQ ID NO: 8047, respectively;
SEQ ID NO: 8529, SEQ ID NO: 201, and SEQ ID NO: 7396, respectively;
SEQ ID NO: 8531, SEQ ID NO: 201, and SEQ ID NO: 7398, respectively;
SEQ ID NO: 8533, SEQ ID NO: 201, and SEQ ID NO: 7400, respectively;
SEQ ID NO: 8535, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8537, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8539, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8541, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8543, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8545, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8547, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;

SEQ ID NO: 8549, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8551, SEQ ID NO: 201, and SEQ ID NO: 7403, respectively;
SEQ ID NO: 8272, SEQ ID NO: 8260, and SEQ ID NO: 8043, respectively;
SEQ ID NO: 8272, SEQ ID NO: 8044, and SEQ ID NO: 8045, respectively;
SEQ ID NO: 8272, SEQ ID NO: 8044, and SEQ ID NO: 8046, respectively; or
SEQ ID NO: 8272, SEQ ID NO: 8044, and SEQ ID NO: 8047, respectively; and/or

(ii) a VL comprising a VLCDR1, a VLCDR2, and a VLCDR3 that comprise the sequences of:

SEQ ID NO: 8051, SEQ ID NO: 8049, and SEQ ID NO: 8052, respectively;
SEQ ID NO: 7409, SEQ ID NO: 224, and SEQ ID NO: 225, respectively;
SEQ ID NO: 7410, SEQ ID NO: 224, and SEQ ID NO: 225, respectively; or
SEQ ID NO: 8048, SEQ ID NO: 8049, and SEQ ID NO: 8050, respectively; or

(2) a VH and a VL respectively comprising a VHCDR1, a VHCDR2, and a VHCDR3; and a

VLCDR1, a VLCDR2, and a VLCDR3 that comprise the VHCDR1, VHCDR2, and VHCDR3 sequences, and the VLCDR1, VLCDR2, and VLCDR3 sequences of:

SEQ ID NO: 8059, and SEQ ID NO: 8060, respectively;
SEQ ID NO: 8061, and SEQ ID NO: 8062, respectively;
SEQ ID NO: 8063, and SEQ ID NO: 8064, respectively;
SEQ ID NO: 8065, and SEQ ID NO: 8066, respectively;
SEQ ID NO: 8067, and SEQ ID NO: 8068, respectively;
SEQ ID NO: 8069, and SEQ ID NO: 8070, respectively;
SEQ ID NO: 8071, and SEQ ID NO: 8072, respectively;
SEQ ID NO: 8073, and SEQ ID NO: 8074, respectively;
SEQ ID NO: 8075, and SEQ ID NO: 8076, respectively;
SEQ ID NO: 8077, and SEQ ID NO: 8078, respectively;
SEQ ID NO: 8079, and SEQ ID NO: 8080, respectively;
SEQ ID NO: 8081, and SEQ ID NO: 8670, respectively;
SEQ ID NO: 8082, and SEQ ID NO: 8083, respectively;
SEQ ID NO: 8084, and SEQ ID NO: 8085, respectively;
SEQ ID NO: 8086 , and SEQ ID NO: 8087, respectively;
SEQ ID NO: 8088, and SEQ ID NO: 8089, respectively;
SEQ ID NO: 8090, and SEQ ID NO: 8091, respectively;
SEQ ID NO: 8092, and SEQ ID NO: 8093, respectively;
SEQ ID NO: 8094, and SEQ ID NO: 8095, respectively;
SEQ ID NO: 8096, and SEQ ID NO: 8097, respectively;
SEQ ID NO: 8098, and SEQ ID NO: 8099, respectively;
SEQ ID NO: 8100, and SEQ ID NO: 8101, respectively;
SEQ ID NO: 8102, and SEQ ID NO: 8103, respectively;

SEQ ID NO: 8104, and SEQ ID NO: 8105, respectively;
SEQ ID NO: 8106, and SEQ ID NO: 8107, respectively;
SEQ ID NO: 8108, and SEQ ID NO: 8109, respectively;
SEQ ID NO: 8110, and SEQ ID NO: 8112, respectively;
SEQ ID NO: 8113, and SEQ ID NO: 8114, respectively;
SEQ ID NO: 8115, and SEQ ID NO: 8116, respectively;
SEQ ID NO: 8117, and SEQ ID NO: 8118, respectively;
SEQ ID NO: 8119, and SEQ ID NO: 8120, respectively;
SEQ ID NO: 8121, and SEQ ID NO: 8122, respectively;
SEQ ID NO: 8123, and SEQ ID NO: 8124, respectively;
SEQ ID NO: 8125, and SEQ ID NO: 8126, respectively;
SEQ ID NO: 8127, and SEQ ID NO: 8128, respectively;
SEQ ID NO: 8129, and SEQ ID NO: 8130, respectively;
SEQ ID NO: 8131, and SEQ ID NO: 8132, respectively;
SEQ ID NO: 8133, and SEQ ID NO: 8134, respectively;
SEQ ID NO: 8135, and SEQ ID NO: 8136, respectively;
SEQ ID NO: 8137, and SEQ ID NO: 8138, respectively;
SEQ ID NO: 8139, and SEQ ID NO: 8140, respectively;
SEQ ID NO: 8141, and SEQ ID NO: 8142, respectively;
SEQ ID NO: 8143, and SEQ ID NO: 8144, respectively;
SEQ ID NO: 8145, and SEQ ID NO: 8146, respectively;
SEQ ID NO: 8147, and SEQ ID NO: 8148, respectively;
SEQ ID NO: 8149, and SEQ ID NO: 8150, respectively;
SEQ ID NO: 8151, and SEQ ID NO: 8152, respectively;
SEQ ID NO: 8153, and SEQ ID NO: 8154, respectively;
SEQ ID NO: 8155, and SEQ ID NO: 8156, respectively;
SEQ ID NO: 8157, and SEQ ID NO: 8158, respectively;
SEQ ID NO: 8159, and SEQ ID NO: 8160, respectively;
SEQ ID NO: 8161, and SEQ ID NO: 8162, respectively;
SEQ ID NO: 8163, and SEQ ID NO: 8164, respectively;
SEQ ID NO: 8165, and SEQ ID NO: 8166, respectively;
SEQ ID NO: 8167, and SEQ ID NO: 8168, respectively;
SEQ ID NO: 8169, and SEQ ID NO: 8170, respectively;
SEQ ID NO: 8171, and SEQ ID NO: 8172, respectively;
SEQ ID NO: 8173, and SEQ ID NO: 8174, respectively;
SEQ ID NO: 8175, and SEQ ID NO: 8176, respectively;
SEQ ID NO: 8177, and SEQ ID NO: 8178, respectively;
SEQ ID NO: 8179, and SEQ ID NO: 8180, respectively;

SEQ ID NO: 8181, and SEQ ID NO: 8182, respectively;
SEQ ID NO: 8183, and SEQ ID NO: 8184, respectively;
SEQ ID NO: 8185, and SEQ ID NO: 8186, respectively;
SEQ ID NO: 8187, and SEQ ID NO: 8188, respectively;
SEQ ID NO: 8189, and SEQ ID NO: 8190, respectively;
SEQ ID NO: 8191, and SEQ ID NO: 8192, respectively;
SEQ ID NO: 8193, and SEQ ID NO: 8194, respectively;
SEQ ID NO: 8195, and SEQ ID NO: 8196, respectively;
SEQ ID NO: 8197, and SEQ ID NO: 8198, respectively;
SEQ ID NO: 8199, and SEQ ID NO: 8200, respectively;
SEQ ID NO: 8201, and SEQ ID NO: 8202, respectively;
SEQ ID NO: 8011, and SEQ ID NO: 8012, respectively;
SEQ ID NO: 8203, and SEQ ID NO: 8204, respectively; or

SEQ ID NO: 8205, and SEQ ID NO: 8206, respectively.

[0002b] In another aspect, provided herein is a polynucleotide comprising a sequence encoding the multifunctional molecule as described herein.

[0002c] In another aspect, provided herein is a pharmaceutical composition comprising the multifunctional molecule as described herein, and a pharmaceutically acceptable carrier, excipient, or stabilizer for use in therapy.

[0002d] In another aspect, provided herein is use of a pharmaceutical composition comprising the multifunctional molecule as described herein in the manufacture of a medicament for treating cancer in a subject in need thereof, wherein the pharmaceutical composition comprises an effective amount of the multifunctional molecule.

[0003] The disclosure relates, inter alia, to novel molecules such as specific antigen binders, such as multispecific or multifunctional molecules, or antibodies that include (i) an antigen binding domain that binds to a tumor antigen on a lymphoma cell (e.g., a T cell), e.g., a T cell receptor comprising T cell receptor beta chain constant domain 1 (TRBC1) or a T cell receptor comprising T cell receptor beta chain constant domain 2 (TRBC2); and one, two or all of: (ii) an immune cell engager (e.g., chosen from an NK cell engager, a T cell engager, a B cell engager, a dendritic cell engager, or a macrophage cell engager); (iii) a cytokine molecule; and/or (iv) a stromal modifying moiety. The terms “multispecific” or “multifunctional” are used interchangeably herein.

[0004] Without wishing to be bound by theory, the multispecific or multifunctional molecules disclosed herein are expected to target (e.g., localize, bridge and/or activate) an immune cell (e.g., an immune effector cell chosen from an NK cell, a T cell, a B cell, a dendritic cell or a macrophage), at a target cell, e.g., a cancer cell (e.g., a lymphoma cell), expressing a T cell receptor comprising TRBC1 or TRBC2, and/or alter the tumor stroma, e.g., alter the tumor microenvironment near the cancer site. Increasing the proximity and/or activity of the immune cell using the multispecific molecules described herein is expected to enhance an immune response against the target cell (e.g., the cancer cell, e.g., lymphoma cell), thereby

providing a more effective therapy (e.g., a more effective cancer therapy). Without being bound by theory, a targeted, localized immune response against the target cell (e.g., the cancer cell) is believed to reduce the effects of systemic toxicity of the multispecific molecules described herein. Furthermore, in the case where the target cancer cell is a T cell (e.g., a T cell expressing a T cell receptor comprising TRBC1 or TRBC2),

[0020] In some embodiments, the second antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Tables, Table 16, Table 17, Table 20A or Table 20B, Table 21A or Table 21B, Table 22, Table 23A or Table 23B, Table 24, Table 25, and Table 26, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the second antigen binding domain comprises a VH comprising a heavy chain complementarity determining region 1 (VHCDR1), a VHCDR2, and a VHCDR3, and a VL comprising a light chain complementarity determining region 1 (VLCDR1), a VLCDR2, and a VLCDR3, wherein the VHCDR1, VHCDR2, and VHCDR3 of the second antigen binding domain comprise the amino acid sequences of: **SEQ ID NOs:** 7313, 6001, and 7315, respectively; **SEQ ID NOs:** 7313, 6001, and 6002, respectively; **SEQ ID NOs:** 7313, 6008, and 6009, respectively; **SEQ ID NOs:** 7313, 7385, and 7315, respectively; or **SEQ ID NOs:** 7313, 7318, and 6009, respectively, **SEQ ID NOs:** 7313, 7318, and 6009, respectively; **SEQ ID NOs:** [8053, 6001, and 7315](#)~~C019, C021, and C023~~, respectively; **SEQ ID NOs:** [8053, 6001, and 7315](#)~~C033, C035, and C037~~, respectively; **SEQ ID NOs:** [8053, 6001, and 7315](#)~~C047, C049, and C051~~, respectively; **SEQ ID NOs:** [8053, 6001, and 7315](#)~~C061, C063, and C065~~, respectively; **SEQ ID NOs:** [8053, 8688, and 7315](#)~~C075, C077, and C079~~, respectively; **SEQ ID NOs:** [8053, 8688, and 7315](#)~~C089, C091, and C093~~, respectively; **SEQ ID NOs:** [8053, 8688, and 7315](#)~~C103, C105, and C107~~, respectively; or **SEQ ID NOs:** [8053, 8688, and 7315](#)~~C116, C118, and C120~~, respectively. In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 of the second antigen binding domain comprise the amino acid sequences of: **SEQ ID NOs:** 7326, 7327, and 7329, respectively; **SEQ ID NOs:** 6063, 6064, and 7293, respectively; **SEQ ID NOs:** 6070, 6071, and 6072, respectively; **SEQ ID NOs:** 6070, 6064, and 7321, respectively; **SEQ ID NOs:** [7326, 7327, and 8689](#)~~C026, C028, and C030~~, respectively; **SEQ ID NOs:** [7326, 7327, and 8690](#)~~C040, C042, and C044~~, respectively; **SEQ ID NOs:** [7326, 7327, and 8690](#)~~C054, C056, and C058~~, respectively; **SEQ ID NOs:** [7326, 7327, and 8689](#)~~C068, C070, and C072~~, respectively; **SEQ ID NOs:** [7326, 7327, and 7329](#)~~C082, C084, and C086~~, respectively; **SEQ ID NOs:** [7326, 7327, and 7329](#)~~C096, C098, and C100~~, respectively; **SEQ ID NOs:** [7326, 7327, and 8691](#)~~C110, C112, and C113~~, respectively; **SEQ ID NOs:** [7326, 7327, and 8691](#)~~C123, C125, and C127~~, respectively. In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 of the second antigen binding domain comprise the amino acid sequences of: **SEQ ID NOs:** 7313, 6001, 7315, 7326, 7327, and 7329, respectively; **SEQ ID NOs:** 7313, 6001, 6002, 6063, 6064, and 7293, respectively; **SEQ ID NOs:** 7313, 6008, 6009, 6070, 6071, and 6072, respectively; **SEQ ID NOs:** 7313, 7385, 7315, 6070, 6064, and 7321, respectively; **SEQ ID NOs:** 7313, 7318, 6009, 6070, 6064, and 7321, respectively; **SEQ ID NOs:** [8053, 6001, 7315, 7326, 7327, and 8689](#)~~C019, C021, C023, C026, C028, and C030~~, respectively; **SEQ ID NOs:** [8053, 6001, 7315, 7326, 7327, and 8690](#)~~C033, C035, C037, C040, C042, and C044~~, respectively; **SEQ ID NOs:** [8053, 6001, 7315, 7326, 7327, and 8690](#)~~C047, C049, C051, C054, C056, and C058~~, respectively; **SEQ ID NOs:** [8053, 6001, 7315, 7326, 7327, and 8689](#)~~C061, C063, C065, C068, C070, and C072~~, respectively; **SEQ ID NOs:** [8053, 8688, 7315, 7326, 7327, and 7329](#)~~C075, C077, C079, C082, C084, and C086~~, respectively; **SEQ ID NOs:** [8053, 8688, 7315, 7326, 7327, and 7329](#)~~C089, C091, C093, C096, C098, and C100~~, respectively; **SEQ ID NOs:** [8053, 8688, 7315, 7326, 7327, and 8691](#)~~C103, C105, C107, C110, C112,~~

~~and C113~~, respectively; or **SEQ ID NOs:** [8053, 8688, 7315, 7326, 7327, and 8691](#)~~C116, C118, C120, C123, C125, and C127~~, respectively. In some embodiments, the VH of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7302, 7298, 7300, 7301, 7303, and 7304 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7309, 7305, 7299, 7306-7308 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6121 or 6123-6128 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7294 or 6137-6141 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6122 or 6129-6134 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6136 or 6142-6147 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** ~~C001-C008~~[7302 and 8692](#) (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto); and/or the VL of the second antigen binding domain comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** [8693-8696, 7309, 7305, 8697, and 8698](#)~~C009-C016~~ (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL of the second antigen binding domain comprise the amino acid sequences of: **SEQ ID NOs:** 7302 and 7309, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto); or **SEQ ID NOs:** 7302 and 7305, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the second antigen binding domain comprise the amino acid sequences of: **SEQ ID NO:** 7311 or 7310 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto); **SEQ ID NO:** 6187 or 6188 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto); or **SEQ ID NO:** 6189 or 6190 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto, any of **SEQ ID NOs:** [8699-8706](#)~~C017-C024~~).

[0021] In some embodiments, the multifunctional molecule binds to TRBC2 monovalently. In some embodiments, the multifunctional molecule comprises a configuration shown in any of FIGs. 30A-30D, optionally wherein: (i) the multifunctional antibody molecule comprises an anti-TRBC2 Fab and an anti-NKp30 scFv, e.g., comprises a configuration shown in FIG. 30A; (ii) the multifunctional antibody molecule

antigen binding domain that binds to NKp30, wherein the first antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Table 5A or Table 5B, Table 6, or Table 7 (e.g., any of **SEQ ID NOs**: [200, 202, 208, 210, 215, 217, 224, 225, 232, 233, 238, 239, 7351, 7355, and 8673-8686](#)~~B001-B095~~), or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0028] In some embodiments, the second antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed herein.

[0029] In another aspect, the disclosure features a multifunctional molecule, comprising: (i) a first antigen binding domain that binds to T cell receptor beta chain constant domain 1 (TRBC1), and (ii) a second antigen binding domain that binds to NKp30, wherein the second antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Tables Table 23A or Table 23B, Table 24, Table 25, or Table 26 (e.g., any of **SEQ ID NOs** [233, 6001, 6006, 6023, 6024, 6080, 6106, 7302, 7305, 7309, 7315, 7326, 7327, 7329, 7335, 7336, 7340-7342, 8053, and 8687-8706](#)~~C001-C128~~), or Table 21A or Table 21B,, or Table 17, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0030] In some embodiments, the first antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed herein.

[0031] In an aspect, the disclosure features a multifunctional molecule, comprising:

(i) a first antigen binding domain that binds to T cell receptor beta chain constant domain 1 (TRBC1), and

(ii) a second antigen binding domain that binds to NKp30,

wherein the first antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Table 5A or Table 5B, Table 6, or Table 7 (e.g., any of **SEQ ID NOs**: [200, 202, 208, 210, 215, 217, 224, 225, 232, 233, 238, 239, 7351, 7355, and 8673-8686](#)~~B001-B095~~), or a sequence having at least 85%, 90%, 95%, or 99% identity thereto; and

wherein the second antigen binding domain comprises one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Tables 8A, Table 16, Table 17, Table 21A or Table 21B,, Table 24, Table 25 or Table 26 (e.g., any of **SEQ ID NOs** [233, 6001, 6006, 6023, 6024, 6080, 6106, 7302, 7305, 7309, 7315, 7326, 7327, 7329, 7335, 7336, 7340-7342, 8053, and 8687-8706](#)~~C001-C128~~): , or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0032] In one aspect, provided herein is an antibody molecule that binds to TRBC2, comprising one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Table 9A or Table 9B, Table 10, Table 11, Table 12, Table 13, Table 14, table 15, Table 17, Table 39, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antibody molecule that binds to TRBC2 comprises one or more CDRs (e.g., VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and/or VLCDR3) disclosed in Table 9 or Table 10, or a sequence having at least

85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antibody molecule that binds to TRBC2 comprises one or more framework regions (e.g., VHFWR1, VHFWR2, VHFWR3, VHFWR4, VLFWR1, VLFWR2, VLFWR3, and/or VLFWR4) disclosed in Table 9 or Table 10, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antibody molecule that binds to TRBC2 comprises a VH and/or a VL disclosed in Table 11, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antibody molecule that binds to TRBC2 comprises an amino acid sequence disclosed in Table 12, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0033] In one aspect, provided herein is an antibody molecule that binds to NKp30, comprising one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Table 16, Table 17, Table 20A or Table 20B, Table 21A or Table 21B, Table 22, Table 23A or Table 23B, Table 24, Table 25, Table 26 or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0034] In one aspect, provided herein is an antibody molecule that binds to TRBC1, comprising one or more CDRs, framework regions, variable regions, or antigen binding domains disclosed in any of Table 1, Table 2A or Table 2B, Table 3A or Table 3B, Table 4, Table 7, Table 8, and Table 16, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0035] In some embodiments, the antibody molecule comprises a heavy chain constant region variant, e.g., an Fc region variant, that comprises one or more mutations that result in reduced or ablated affinity for at least one Fc receptor, optionally wherein the one or more mutations result in reduced or ablated antibody dependent cell-mediated cytotoxicity (ADCC), Antibody-dependent cellular phagocytosis (ADCP), or complement dependent cytotoxicity (CDC). In some embodiments, the Fc region variant comprises one or more mutations disclosed in Table 18, optionally wherein the Fc region variant comprises an N297A mutation.

[0036] In some embodiments, an amino acid sequence disclosed herein comprises a signal peptide of METDTLLLWVLLLWVPGSTG (~~SEQ ID NO:~~ SEQ ID NO: 7444). In some embodiments, an amino acid sequence disclosed herein does not comprise a signal peptide of METDTLLLWVLLLWVPGSTG (~~SEQ ID NO:~~ SEQ ID NO: 7444)

[0037] In one aspect, provide herein is a nucleic acid molecule encoding a multifunctional molecule disclosed herein or an antibody molecule disclosed herein. In one aspect, provide herein is a vector, e.g., an expression vector, comprising a nucleic acid molecule disclosed herein. In one aspect, provide herein is a cell comprising a nucleic acid molecule disclosed herein or a vector disclosed herein. In one aspect,

	S (SEQ ID NO: 8511)	NO: 8507)	(SEQ ID NO: 208)	(SEQ ID NO: 201)	YYCAR (SEQ ID NO: 7349)	(SEQ ID NO: 202)	NO: 7347)
H1 germli ned-VH	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8512)	GYTFSG YAIS (SEQ ID NO: 8513)	WVRQA PGQGL EWMG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTITSD KSTTTAY MELSSLR SEDTAVY YCAR (SEQ ID NO: 217)	GAGYNF DGAYRF FDF (SEQ ID NO: 202)	WGQGTL VTVSS (SEQ ID NO: 210)
H2 germli ned-VH	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8514)	GYTFT GYVMH (SEQ ID NO: 8507)	WVRQA PGQGL EWMG (SEQ ID NO: 208)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355)	RVTITSD KSTTTAY MELSSLR SEDTAVY YCAR (SEQ ID NO: 217)	GAGYNF DGAYRF FDF (SEQ ID NO: 202)	WGQGTL VTVSS (SEQ ID NO: 210)
H1/H2 germli ned-VH	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8515)	GYTFSG YAIS (SEQ ID NO: 8513 ; 8516)	WVRQA PGQGL EWMG (SEQ ID NO: 208)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355)	RVTITSD KSTTTAY MELSSLR SEDTAVY YCAR (SEQ ID NO: 217)	GAGYNF DGAYRF FDF (SEQ ID NO: 202)	WGQGTL VTVSS (SEQ ID NO: 210)

Table 4. Exemplary light chain CDRs and FWRs of TRBC1-targeting antigen binding domains derived from JOVI.1 (According to Kabat numbering scheme)

Ab ID	VLFWR1	VLCDR1	VLFWR 2	VLCDR2	VLFWR3	VLCDR3	VLFWR4
mJOVI .1-L	DVVM T QSPLSLP VSLGDQ ASISC (SEQ ID NO: 226)	RSSQRL VHSNG NTYLH (SEQ ID NO: 223)	WYLQK PGQSPK LLIY (SEQ ID NO: 227)	<i>RVS NRFP</i> (SEQ ID NO: 224)	GVPDRFS GSGSGTD FTLKISR VEAEDLG IYFC (SEQ ID NO: 228)	SQSTHV PYT (SEQ ID NO: 225)	FGGGTK LEIK (SEQ ID NO: 229)
h1JOV I.1-L	DVVM T QSPLSLP VTPGEP ASISC (SEQ ID NO: 230)	RSSQRL VHSNG NTYLH (SEQ ID NO: 223)	WYLQK PGQSPQ LLIY (SEQ ID NO: 231)	<i>RVS NRFP</i> (SEQ ID NO: 224)	GVPDRFS GSGSGTD FTLKISR VEAEDV GVIYFC (SEQ ID NO: 232)	SQSTHV PYT (SEQ ID NO: 225)	FGGGTK VEIK (SEQ ID NO: 233)

					(SEQ ID NO: 232)		
L1/L2/ L3 germli ned- VL	DVVMT QSPLSLP VTLGQP ASISC (SEQ ID NO: 238)	RSSQSL VYSDG NTYH (SEQ ID NO: 7367)	WYQQR PGQSPR LLIY (SEQ ID NO: 239)	KVSNRDS (SEQ ID NO: 7368)	GVPDRFS GSGSGTD FTLKISR VEAEDV GVYFC (SEQ ID NO: 232)	MQSTH WPYT (SEQ ID NO: 7369)	FGGGTK VEIK (SEQ ID NO: 233)

Table 5A. Exemplary heavy chain CDRs and FWRs of TRBC1-targeting antigen binding domains (According to Kabat numbering scheme)

Ab ID	VHFWR1	VHCDR1	VHFWR2	VHCDR2	VHFWR3	VHCDR3	VHFWR4
BKM0191	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B019)	GYVMH (SEQ ID NO: 200B02 9)	WVRQA PGQGLE WMG (SEQ ID NO: 208B02 4)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355B02 2)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B023)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B024)	WGQGT LTVVSS (SEQ ID NO: 210B02 5)
BKM0192	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B033)	GYVMH (SEQ ID NO: 200B03 4)	WVRQA PGQGLE WMG (SEQ ID NO: 208B03 5)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355B03 6)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B037)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B038)	WGQGT LTVVSS (SEQ ID NO: 210B03 9)
BKM0193	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B047)	GYVMH (SEQ ID NO: 200B04 8)	WVRQA PGQGLE WMG (SEQ ID NO: 208B04 9)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355B05 9)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B051)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B052)	WGQGT LTVVSS (SEQ ID NO: 210B05 3)
BKM0194	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B061)	GYVMH (SEQ ID NO: 200B06 2)	WVRQA PGQGLE WMG (SEQ ID NO: 208B06 3)	FIPIFGT ANYAQK FQG (SEQ ID NO: 7355B06 4)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B065)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B066)	WGQGT LTVVSS (SEQ ID NO: 210B06 7)

BKM0 195	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B075)	GYVMH (SEQ ID NO: 200B076)	WVRQA PGQGLE WMG (SEQ ID NO: 208B077)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B078)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B079)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B080)	WGQGT LTVSS (SEQ ID NO: 210B081)
BKM0 196	QVQLVQ SGAEVK KPGSSV KVSCKA SGYTFT (SEQ ID NO: 215B089)	GYVMH (SEQ ID NO: 200B090)	WVRQA PGQGLE WMG (SEQ ID NO: 208B091)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B092)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B093)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B094)	WGQGT LTVSS (SEQ ID NO: 210B095)

Table 5B. Exemplary heavy chain CDRs and FWRs of TRBC1-targeting antigen binding domains of Table 5A (According to ABM numbering scheme)

Ab ID	VHFWR1	VHCDR1	VHFWR2	VHCDR2	VHFWR3	VHCDR3	VHFWR4
BKM0 191	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8516)	GYTFTG YVMH (SEQ ID NO: 8517)	WVRQA PGQGLE WMG (SEQ ID NO: 208B021)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B022)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B023)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B024)	WGQGT LTVSS (SEQ ID NO: 210B025)
BKM0 192	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8518)	GYTFTG YVMH (SEQ ID NO: 8519)	WVRQA PGQGLE WMG (SEQ ID NO: 208B035)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B036)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B037)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B038)	WGQGT LTVSS (SEQ ID NO: 210B039)
BKM0 193	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8520)	GYTFTG YVMH (SEQ ID NO: 8521)	WVRQA PGQGLE WMG (SEQ ID NO: 208B049)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B050)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B051)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B052)	WGQGT LTVSS (SEQ ID NO: 210B053)
BKM0 194	QVQLVQ SGAEVK KPGSSV KVSCKA	GYTFTG YVMH (SEQ ID	WVRQA PGQGLE WMG (SEQ ID	FIIPFGT ANYAQK FQG (SEQ ID	RVTITSDK STTTAYM ELSSLRSE DTAVY	GAGYNFD GAYRFFD F (SEQ	WGQGT LTVSS (SEQ ID

	S (SEQ ID NO: 8522)	NO: 8523)	NO: 208B063)	NO: 7355B064)	YCAR (SEQ ID NO: 217B065)	ID NO: 202B066)	NO: 210B067
BKM0 195	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8524)	GYTFTG YVMH (SEQ ID NO: 8525)	WVRQA PGQGLE WMG (SEQ ID NO: 208B077)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B078)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B079)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B080)	WGQGT LVTVSS (SEQ ID NO: 210B084)
BKM0 196	QVQLVQ SGAEVK KPGSSV KVSCKA S (SEQ ID NO: 8526)	GYTFTG YVMH (SEQ ID NO: 8527)	WVRQA PGQGLE WMG (SEQ ID NO: 208B094)	FIIPFGT ANYAQK FQG (SEQ ID NO: 7355B092)	RVTITSDK STTTAYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 217B093)	GAGYNFD GAYRFFD F (SEQ ID NO: 202B094)	WGQGT LVTVSS (SEQ ID NO: 210B095)

Table 6. Exemplary light chain CDRs and FWRs of TRBC1-targeting antigen binding domains (According to Kabat numbering scheme)

Ab ID	VLFWR1	VLCDR1	VLFWR 2	VLCDR2	VLFWR3	VLCDR3	VLFWR 4
BKM0 191	DVVMQT SPLSLPV TLGQPA SISC (SEQ ID NO: 238B013)	RSSQRL VHSNA NTYLH (SEQ ID NO: 8673B014)	WYQQR PGQSPR LLIY (SEQ ID NO: 239B015)	<i>RVSNRFP</i> (SEQ ID NO: 224B016)	GVPDRFS GSGSGTD FTLKISRV EAEDVG V YFC (SEQ ID NO: 232B016)	SQSTHVP YTF (SEQ ID NO: 8674B017)	GGGTKV EIK (SEQ ID NO: 8675B018)
BKM0 192	DVVMQT SPLSLPV TLGQPA SISC (SEQ ID NO: 238B026)	RSSQRL VHSNG NAYLH (SEQ ID NO: 8676B027)	WYQQR PGQSPR LLIY (SEQ ID NO: 239B028)	<i>RVSNRFP</i> (SEQ ID NO: 224B029)	GVPDRFS GSGSGTD FTLKISRV EAEDVG V YFC (SEQ ID NO: 232B030)	SQSTHVP YTF (SEQ ID NO: 8674B031)	GGGTKV EIK (SEQ ID NO: 8675B032)
BKM0 193	DVVMQT SPLSLPV TLGQPA SISC (SEQ ID NO: 238B040)	RSSQRL VHSNA NAYLH (SEQ ID NO: 8677B041)	WYQQR PGQSPR LLIY (SEQ ID NO: 239B042)	<i>RVSNRFP</i> (SEQ ID NO: 224B043)	GVPDRFS GSGSGTD FTLKISRV EAEDVG V YFC (SEQ ID NO: 232B044)	SQSTHVP YT (SEQ ID NO: 225B045)	FGGGTK VEIK (SEQ ID NO: 233B046)
BKM0 194	DVVMQT SPLSLPV TLGQP	RSSQRL VHSGG NTYLH	WYQQR PGQSPR LLIY	<i>RVSNRFP</i> (SEQ ID	GVPDRFS GSGSGTD FTLKISR	SQSTHVP YT (SEQ	FGGGTK VEIK (SEQ ID

	ASISC (SEQ ID NO: 238B054)	(SEQ ID NO: 8678B055)	(SEQ ID NO: 239B056)	NO: 224B057)	VEAEDVG VYFC (SEQ ID NO: 232B058)	ID NO: 225B059)	NO: 233B060)
BKM0195	DVVMQT SPLSLPV TLGQPA SISC (SEQ ID NO: 238B068)	RSSQRL VHSNG STYLH (SEQ ID NO: 8679B069)	WYQQR PGQSPR LLIY (SEQ ID NO: 239B070)	<i>RVSNRFP</i> (SEQ ID NO: 224B071)	GVPDRFS GSGSGTD FTLKISRV EAEDVGV YFC (SEQ ID NO: 232B072)	SQSTHVP YT (SEQ ID NO: 225B073)	FGGGTK VEIK (SEQ ID NO: 233B074)
BKM0196	DVVMQT SPLSLPV TLGQPA SISC (SEQ ID NO: 238B082)	RSSQRL VHSGGS TYLH (SEQ ID NO: 8680B083)	WYQQR PGQSPR LLIY (SEQ ID NO: 239B084)	<i>RVSNRFP</i> (SEQ ID NO: 224B085)	GVPDRFS GSGSGTD FTLKISRV EAEDVGV YFC (SEQ ID NO: 232B086)	SQSTHVP YT (SEQ ID NO: 225B087)	FGGGTK VEIK (SEQ ID NO: 233B088)

Table 7. Exemplary variable regions of TRBC1-targeting antigen binding domains

SEQ ID NO	Ab ID	Description	Sequence
SEQ ID NO: 250	mJOVI.1-H	JOVI.1 heavy chain variable region	EVRLQQSGPDLIKPGASVKMSCKASGYTFTGYVMHW VKQRPGQGLEWIGFINPYNDIQSNERFRGKATLTSDK SSTTAYMELSSLTSEDSAVYYCARGAGYNFDGAYRFF DFWGQGTTTLTVSS
SEQ ID NO: 251	h1JOVI.1-H	JOVI.1 heavy chain variable region humanized variant 1	QVQLVQSGAEVKKPGASVKVSCASGYTFTGYVMH WVRQAPGQGLEWMGFNIPYNDIQSNERFRGRVTMT SDKSTTTAYMELSSLRSEDYAVYYCARGAGYNFDGA YRFFDFWGQGTLTVTVSS
SEQ ID NO: 252	h2JOVI.1-H	JOVI.1 heavy chain variable region humanized variant 2	QVQLVQSGAEVKKPGASVKVSCASGYTFTGYVMH WVRQAPGQGLEWMGFNIPYNDIQSNERFRGWVTMT SDKSITTAYMELSLRSDDTAVYYCARGAGYNFDGAY RFFDFWGQGTLTVTVSS
SEQ ID NO: 253	h3JOVI.1-H	JOVI.1 heavy chain variable region humanized variant 3	QVQLVQSGAEVKKPGSSVKVSCASGYTFTGYVMHW VRQAPGQGLEWMGFNIPYNDIQSNERFRGRVTITSD KSTTTAYMELSSLRSEDYAVYYCARGAGYNFDGAYRF DFWGQGTLTVTVSS
SEQ ID NO: 254	h4JOVI.1-H	JOVI.1 heavy chain variable	QVQLVQSGAEVKKPGASVKVSCASGYTFTGYVMH WVRQAPGQRLEWMGFNIPYNDIQSNERFRGRVTITS

		region humanized variant 4	DKSATTAYMELSSLRSEDNAVYYCARGAGYNFDGAY RFFDFWGQGTTLTVSS
SEQ ID NO: 7343	h5JOV I.1-H	JOVI.1 heavy chain variable region humanized variant 5	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFNPYNDDIQSNERFRGRVTITSD KSTTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSS
SEQ ID NO: 7344	h6JOV I.1-H	JOVI.1 heavy chain variable region humanized variant 6	QVQLVQSGAEVKKPGASVKVSCKASGYTFTGYVMH WVRQAPGQGLEWMGFNPYNDDIQSNERFRGRVTMT SDKSITTAYMELSRLRSDDTAVYYCARGAGYNFDGAY RFFDFWGQGTTLTVSS
SEQ ID NO: 7350	H1 germli ned- VH	JOVI.1 heavy chain variable region humanized H1	QVQLVQSGAEVKKPGSSVKVSCKASGYTFSGYAISWV RQAPGQGLEWMGFNPYNDDIQSNERFRGRVTITSDKS TTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFFD FWGQGTTLTVSS
SEQ ID NO: 7351	H2 germli ned- VH	JOVI.1 heavy chain variable region humanized H2	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSS
SEQ ID NO: 7352	H1/H2 germli ned- VH	JOVI.1 heavy chain variable region humanized H1/H2	QVQLVQSGAEVKKPGSSVKVSCKASGYTFSGYAISWV RQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDKS TTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFFD FWGQGTTLTVSS
SEQ ID NO: 255	mJOVI .1-L	JOVI.1 light chain variable region	DVVMTQSPLSLPVSLGDQASISCRSSQRLVHSNGNTYL HWYLQKPGQSPKLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDLGIYFCSQSTHVPYTFGGGTKLEIK
SEQ ID NO: 7351B001	BKM0 191 VH	BKM0191 G29A heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSS
SEQ ID NO: 7351B002	BKM0 192 VH	BKM0192 T31A heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDNAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSS

SEQ ID NO: 7351B003	BKM0193 VH	BKM0193 G29a T31A heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDTAVYYCARGAGYNFDGAYRFF DFWGQGTLLTVSS
SEQ ID NO: 7351B004	BKM0194 VH	BKM0194 N28G heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDTAVYYCARGAGYNFDGAYRFF DFWGQGTLLTVSS
SEQ ID NO: 7351B005	BKM0195 VH	BKM0195 N30S heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDTAVYYCARGAGYNFDGAYRFF DFWGQGTLLTVSS
SEQ ID NO: 7351B006	BKM0196 VH	BKM0196 N28G N30S heavy chain variable region	QVQLVQSGAEVKKPGSSVKVSCKASGYTFTGYVMHW VRQAPGQGLEWMGFIPIFGTANYAQKFQGRVTITSDK STTTAYMELSSLRSEDTAVYYCARGAGYNFDGAYRFF DFWGQGTLLTVSS
SEQ ID NO: 256	h1JOV I.1-L	JOVI.1 light chain variable region humanized variant 1	DVVMTQSPLSLPVTGPGEPAISCRSSQRLVHSNGNTYL HWYLQKPGQSPQLLIYRVSNRFPGVDPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 257	h2JOV I.1-L	JOVI.1 light chain variable region humanized variant 2	EVVMTQSPGTLSPGERATLSCRSSQRLVHSNGNTYL HWYQQKPGQAPRLLIYRVSNRFPVIPDRFSGSGSGTDF TLTISRLEPEDFAVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 258	h3JOV I.1-L	JOVI.1 light chain variable region humanized variant 3	DVVMTQSPLSLPVTLGQPASISCRSSQRLVHSNGNTYL HWYQQRPGQSPRLLIYRVSNRFPGVDPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 259	h4JOV I.1-L	JOVI.1 light chain variable region humanized variant 4	DVVMTQTPLSLPVTGPGEPAISCRSSQRLVHSNGNTYL HWYLQKPGQSPQLLIYRVSNRFPGVDPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 260	h5JOV I.1-L	JOVI.1 light chain variable region	DVVMTQTPLSLSVTPGQPASISCRSSQRLVHSNGNTYL HWYLQKPGQSPQLLIYRVSNRFPGVDPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK

		humanized variant 5	
SEQ ID NO: 7357	L1 germli ned- VL	JOVI.1 light chain variable region humanized L1	DVVMQTQSPLSLPVTLGQPASISCRSSQSLVYSDGNTYH WYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDFT LKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 7358	L2 germli ned- VL	JOVI.1 light chain variable region humanized L2	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSNGNTYL HWYQQRPGQSPRLLIYKVSNRDSGVPDRFSGSGSGTD FTLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 7359	L3 germli ned- VL	JOVI.1 light chain variable region humanized L3	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSNGNTYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCMQSTHWPYTFGGGTKVEIK
SEQ ID NO: 7360	L1/L2/ L3 germli ned- VL	JOVI.1 light chain variable region humanized L1/L2/L3	DVVMQTQSPLSLPVTLGQPASISCRSSQSLVYSDGNTYH WYQQRPGQSPRLLIYKVSNRDSGVPDRFSGSGSGTDFT LKISRVEAEDVGVYFCMQSTHWPYTFGGGTKVEIK
SEQ ID NO: 8681B007	BKM0 191 VL	BKM0191 G29A light chain variable region	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSNANTYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 8682B008	BKM0 192 VL	BKM0192 T31A light chain variable region	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSNGNAYLH WYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDFTL KISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 8683B009	BKM0 193 VL	BKM0193 G29a T31A light chain variable region	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSNANAYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 8684B010	BKM0 194 VL	BKM0194 N28G light chain variable region	DVVMQTQSPLSLPVTLGQPASISCRSSQRLVHSGGNTYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK

SEQ ID NO: 8685B0 11	BKM0195 VL	BKM0195 N30S light chain variable region	DVVMTQSPLSLPVTLGQPASISCRSSQRLVHSNGSTYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK
SEQ ID NO: 8686B0 12	BKM0196 VL	BKM0196 N28G N30S light chain variable region	DVVMTQSPLSLPVTLGQPASISCRSSQRLVHSGGSTYL HWYQQRPGQSPRLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDVGVYFCSQSTHVPYTFGGGTKVEIK

Table 8. Exemplary TRBC1-targeting antigen binding domains/antibody molecules

SEQ ID NO	Ab ID	Description	Sequence
SEQ ID NO: 6154	Ch(anti - TRBC 1)HC N297A	Anti-TRBC1 heavy chain	EVRLQQSGPDLIKPGASVKMSCKASGYTFTGYVMHW VKQRPGQGLEWIGFINPYNDIQSNERFRGKATLTSDK SSTTAYMELSSLTSEDSAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSSASTKGPSVFPLAPSSKSTSGGTAAL GCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRV KSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRT PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPR EEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLW CLVKGFIYPSDIAVEWESNGQPENNYKTTTPVLDSDGSF FLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKS LSLSPGK
SEQ ID NO: 6155	Ch(anti - TRBC 1)HC	Anti-TRBC1 heavy chain	EVRLQQSGPDLIKPGASVKMSCKASGYTFTGYVMHW VKQRPGQGLEWIGFINPYNDIQSNERFRGKATLTSDK SSTTAYMELSSLTSEDSAVYYCARGAGYNFDGAYRFF DFWGQGTTLTVSSASTKGPSVFPLAPSSKSTSGGTAAL GCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRV KSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRT PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPR EEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLW CLVKGFIYPSDIAVEWESNGQPENNYKTTTPVLDSDGSF FLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKS LSLSPGK
SEQ ID NO: 6156	Ch(anti - TRBC 1) LC	Anti-TRBC1 light chain, e.g., a LC Fab	DVVMTQSPLSLPVSLGDQASISCRSSQRLVHSNGNTYL HWYLQKPGQSPKLLIYRVSNRFGVPDRFSGSGSGTDF TLKISRVEAEDLGIFCSQSTHVPYTFGGGTKLEIKRTV AAPSVEIFPPSDEQLKSGTASVVCLLNNFYPREAKVQW KVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKAD YEKHKVYACEVTHQGLSSPVTKSFNRGEC

**Table 9A. Exemplary heavy chain CDRs and FWRs of TRBC2-targeting antigen binding domains
(According to Kabat numbering scheme)**

Ab ID	VHFWR1	VHCDR1	VHFWR2	VHCDR2	VHFWR3	VHCDR3	VHFWR4
JVD3-VH	QVQLVQ SGAEVK KPGASVK VSCKASG YTFP (SEQ ID NO: 7393)	GFVMH (SEQ ID NO: 7394)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTMTS DKSTTT AYMELS SLRSED AVYYCA R (SEQ ID NO: 209)	GNGMW FDGAYR FFDF (SEQ ID NO: 7396)	WGQGT LVTVSS (SEQ ID NO: 210)
JVD4-VH	QVQLVQ SGAEVK KPGASVK VSCKASG YPFH (SEQ ID NO: 7397)	GYVMH (SEQ ID NO: 7346)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTMTS DKSTTT AYMELS SLRSED AVYYCA R (SEQ ID NO: 209)	GNGKNF DGAYRF FDF (SEQ ID NO: 7398)	WGQGT LVTVSS (SEQ ID NO: 210)
JVD5-VH	QVQLVQ SGAEVK KPGASVK VSCKASG YTYP (SEQ ID NO: 7399)	GYVMH (SEQ ID NO: 7346)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTMTS DKSTTT AYMELS SLRSED AVYYCA R (SEQ ID NO: 209)	GNGKW FDGAYR FFDF (SEQ ID NO: 7400)	WGQGT LVTVSS (SEQ ID NO: 210)
JVD6-VH	QVQLVQ SGAEVK KPGASVK VSCKASN QNFH (SEQ ID NO: 7402 , ~~7401~~)	GYHMH (SEQ ID NO: 7401)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTMTS DKSTTT AYMELS SLRSED AVYYCA R (SEQ ID NO: 209)	GNGKW GDGAYR FFDF (SEQ ID NO: 7403)	WGQGT LVTVSS (SEQ ID NO: 210)
JVD7-VH	QVQLVQ SGAEVK KPGASVK VSCKASS QNFH (SEQ ID NO: 7404)	GFYMH (SEQ ID NO: 7405)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG (SEQ ID NO: 201)	RVTMTS DKSTTT AYMELS SLRSED AVYYCA R (SEQ ID NO: 209)	GNGKW GDGAYR FFDF (SEQ ID NO: 7403)	WGQGT LVTVSS (SEQ ID NO: 210)
JVD8-VH	QVQLVQ SGAEVK KPGASVK	GYKMH (SEQ ID NO: 7406)	WVRQAP GQGLEW MG (SEQ ID NO: 208)	FINPYND DIQSNER FRG	RVTMTS DKSTTT AYMELS	GNGKW GDGAYR FFDF	WGQGT LVTVSS

[0569] In some embodiments, an exemplary bispecific antibody comprises (i) a first antigen binding domain comprising a TRBC2 binding domain having a heavy chain sequence of **SEQ ID NO: 8013**, or a sequence that is at least 95% identical to **SEQ ID NO: 8013**; and a light chain sequence of **SEQ ID NO: 8014**, or a sequence that is at least 95% identical to **SEQ ID NO: 8014**; and (ii) a second antigen binding domain comprising a NKp30 binding domain having a heavy chain and a light chain sequence of **SEQ ID NO: 8030** and **8031** respectively.

[0570] In some embodiments, an exemplary bispecific antibody comprises (i) a first antigen binding domain comprising a TRBC2 binding domain having a heavy chain sequence of **SEQ ID NO: 8011**, or a sequence that is at least 90% identical to **SEQ ID NO: 8011** and a light chain sequence of **SEQ ID NO: 8012**, or a sequence that is at least 95% identical to **SEQ ID NO: 8012**; and (ii) a second antigen binding domain comprising a NKp30 binding domain having a heavy chain and a light chain sequence at least 90% identical to **SEQ ID NO: 8030** and at least 90% identical to **SEQ ID NO: 8031** respectively.

[0571] In some embodiments, an exemplary bispecific antibody comprises (i) a first antigen binding domain comprising a TRBC2 binding domain having a heavy chain sequence of **SEQ ID NO: 8013**, or a sequence that is at least 95% identical to **SEQ ID NO: 8013** and a light chain sequence of **SEQ ID NO: 8014**, or a sequence that is at least 95% identical to **SEQ ID NO: 8014**; and (ii) a second antigen binding domain comprising a NKp30 binding domain having a heavy chain and a light chain sequence at least 90% identical to **SEQ ID NO: 8030** and at least 90% identical to **SEQ ID NO: 8031** respectively.

[0572] In some embodiments, the bi-specific antibody comprising : (i) a first antigen binding domain comprising a TRBC2 binding domain that comprises a single chain variable fragment (scFv); wherein the scFv comprises a heavy chain and a light chain that are linked by a short linker, and (ii) a second antigen binding domain comprising a NKp30 binding domain that comprises a single chain variable fragment (scFv); wherein scFv comprises a heavy chain and a light chain that are linked by a short linker.

[0573] In some embodiments, the heavy chain of a TRBC2 binding domain comprises a HC CDR1, a CDR2 and a CDR3. In some embodiments, the light chain of a TRBC2 binding domain comprises a LC CDR1, a CDR2 and a CDR3. In one embodiment, the heavy chain of a TRBC2 binding domain comprises a HC CDR1 having an amino acid sequence comprising PRGFYGYHMH (**SEQ ID NO: 8272**) {or PRGFYGY (**SEQ ID NO: 8041** according to Chothia numbering system)}, or PRGFYGYAMH (**SEQ ID NO: 86728272**). In one embodiment, the heavy chain of a TRBC2 binding domain comprises a HC CDR1 having an amino acid sequence RSGFHGYAMH (**SEQ ID NO: 8207**) or PRGFHGYHMH (**SEQ ID NO: 8211**). In some embodiments, the heavy chain TRBC2 binding domain comprises a HC CDR1 comprising an amino acid sequence SRSGFHGYAMH (**SEQ ID NO: 8215**). In some embodiments, the heavy chain

TRBC2 binding domain comprises a HC CDR1 comprising an amino acid sequence PRGFYGYHMH (SEQ ID NO: 8219). In some embodiments, the heavy chain TRBC2 binding domain comprises a HC CDR1 comprising an amino acid sequence RSSQNLVHSNGRTYLH (SEQ ID NO: 8226). In one embodiment, the heavy chain of a TRBC2 binding domain comprises a HC CDR2 having an amino acid sequence MGFINPYTNDIQYNERFRG (SEQ ID NO: 8042). In one embodiment, the heavy chain of a TRBC2 binding domain comprises a HC CDR3 having an amino acid sequence GNGKWGDGAYRFFDL (SEQ ID NO: 8043). In one embodiment, the heavy chain of a TRBC2 binding domain comprises a HC CDR2 comprising an amino acid sequence FINPYNNHQYNERFRG (SEQ ID NO: 8044) or FINPYNDDIQYNQKFQG (SEQ ID NO: 8208) or YINPYNRDIKYNQKFQG (SEQ ID NO: 8212). In some embodiments, the HC CDR2 has an amino acid sequence FINPYNHAIKYNQKFQG (SEQ ID NO: 8213). In some embodiments, the HC CDR2 has an amino acid sequence YINPYTGDIKYNERFRG (SEQ ID NO: 8217). In some embodiments, the HC CDR2 has an amino acid sequence FINPYNDDIQYNERFRG (SEQ ID NO: 8221). In some embodiments, the HC CDR2 has an amino acid sequence TINPYNAEIKYNQKFQG (SEQ ID NO: 8222). In some embodiments, the HC CDR2 has an amino acid sequence TINPYNRDIKYNQKFQG (SEQ ID NO: 8225). In some embodiments, the HC CDR2 has an amino acid sequence FINPYNRDIKYNERFRG (SEQ ID NO: 8228). In some embodiments, the HC CDR2 has an amino acid sequence AINPYTNDIKYNERFRG (SEQ ID NO: 8229). In some embodiments, the HC CDR2 has an amino acid sequence AINPYTNHIQYNERFRG (SEQ ID NO: 8230). In some embodiments, the HC CDR2 has an amino acid sequence AINPYTRAIKYNERFRG (SEQ ID NO: 8231). In some embodiments, the HC CDR2 has an amino acid sequence TINPYNGDIQYNERFRG (SEQ ID NO: 8232). In some embodiments, the HC CDR2 has an amino acid sequence AINPYNTDIKYNERFRG (SEQ ID NO: 8233). In some embodiments, the HC CDR2 has an amino acid sequence YINPYNGAIKYNQKFQG (SEQ ID NO: 8234). In some embodiments, the HC CDR2 has an amino acid sequence AINPYNDDIQSNERFRG (SEQ ID NO: 8235). In some embodiments, the HC CDR2 has an amino acid sequence FINPYNRAIQYNQKFQG (SEQ ID NO: 8236). In some embodiments, the HC CDR2 has an amino acid sequence FINPYTNEIQYNERFRG (SEQ ID NO: 8237). In some embodiments, the HC CDR2 has an amino acid sequence YINPYNHDIQYNQKFQG (SEQ ID NO: 86718237). In some embodiments, the HC CDR2 has an amino acid sequence SINPYTHDIQYNERFRG (SEQ ID NO: 8238). In some embodiments, the HC CDR2 has an amino acid sequence YINPYKNAIQYNQKFQG (SEQ ID NO: 8239). In some embodiments, the HC CDR2 has an amino acid sequence AINPYNTDIQYNERFRG (SEQ ID NO: 8240). In some embodiments, the HC CDR2 has an amino acid sequence SINPYNGDIQYNERFRG (SEQ ID NO: 8241). In some embodiments, the HC

PRGFYGYHMH (SEQ ID NO: 8272) per ABM numbering system / or, {GYHMH, SEQ ID NO: 7401 per Kabat numbering system}	FINPYTNDIQYNERFRG (SEQ ID NO: 8260)	GNGKWGDGAYRFFDL (SEQ ID NO: <u>80438227</u>)
PRGFYGYHMH (SEQ ID NO: 8272) {GYHMH, SEQ ID NO: 7401 per Kabat numbering system}	FINPYNNNHIQYNERFRG (SEQ ID NO: 8044)	GNGKWGDGAYRFFDF (SEQ ID NO: 8045)
PRGFYGYHMH (SEQ ID NO: 8272) {GYHMH, SEQ ID NO: 7401 per Kabat numbering system}	FINPYNNNHIQYNERFRG (SEQ ID NO: 8044)	GEGKWGDGAYRFFDF (SEQ ID NO: 8046)
PRGFYGYHMH (SEQ ID NO: 8272) {or, GYHMH, SEQ ID NO: 7401 per Kabat numbering system}	FINPYNNNHIQYNERFRG (SEQ ID NO: 8044)	GAGKWGDGAYRFFDF (SEQ ID NO: 8047)
LC CDR1	LC CDR2	LC CDR3
RSSENLVHSGRNTYLQ (SEQ ID NO: 8048)	RVSNRFP (SEQ ID NO: 8049)	SQSSLEPYT (SEQ ID NO: 8050)
RSSKNLVHSGRNTYLQ (SEQ ID NO: 8051)	RVSNRFP (SEQ ID NO: 8049)	SQSTREPYT (SEQ ID NO: 8052)

[0579] Additional TRBC2 binding variable heavy chain (VH) and variable light chain (VL) sequences that are used for generating anti-TRBC2 scFv are listed in Table 15:

Table 15. TRBC2 binding heavy chain and light chain pairs for scFv. In each sequence the CDR1 is marked in bold font underlined (according to combined Kabat and Chothia [ABM] numbering system), the CDR2 is marked in italicized font (Kabat numbering system), and the CDR3 (Kabat numbering system) is marked in bold and italicized font that is underlined.

Name	Sequence
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VH	YCARGNGKWGDGAYRFFDFWGGGTLVTVSS (SEQ ID NO: 8079)
L1L2P3-B12 VL	DVVMQTSPSLPVTGPGEASISCRSSQNLVHSNGRTYLHWYLQKPG QSPQLLIYRVSNRFPVPDRFSGSGSGTDFTLKISRVEAEDVGVYFC <u>SQSTHVPYT</u> FGGGTKVEIK (SEQ ID NO: 8080)
L1L2P3-B2	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGL EWMGYINPYTNEIKYNERFRGRVTITSDESTTTAYMELSSLRSED TAVYYCARGNGKWGDGAYRFFDLWGGGTLVTVSS (SEQ ID NO: 8081)
VL	DVVMQTSPSLPVTLGQPASISCRSSKNLVHSNGRTYLOWYLQKPGQS PQLLIYRVSNRFPVPDRFSGSGSGTDFTLKISRVEAEDVGVYFC <u>SQSTH</u> <u>VPYT</u> FGGGTKVEIK (SEQ ID NO: 86708081)
L1L2P3-B3 VH	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLE WMGFINPYNDDIQYNQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARGNGKWGDGAYRFFDFWGGGTLVTVSS (SEQ ID NO: 8082)
VL	DVVMQTSPSLPVTGPGEASISCRSSQNLVHSNGRTYLOWYLQKPGQ SPQLLIYRVSNRFPVPDRFSGSGSGTDFTLKISRVEAEDVGVYFC <u>SQ</u> <u>STHVPYT</u> FGGGTKVEIK (SEQ ID NO: 8083)
L1L2P3-B4 VH	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLE WMGTINPYNAEIKYNQKFQGRVTITADKSTSTAYMELSSLRSED TAVYYCARGNGKWGDGAYRFFDFWGGGTLVTVSS (SEQ ID NO: 8084)
VL	DVVMQTSPSLPVTGPGEASISCRSSQNLVHSNGRTYLOWYLQKPGQSP QLLIYRVSNRFPVPDRFSGSGSGTDFTLKISRVEAEDVGVYYCSQSTYE PFTFGGGTKVEIK (SEQ ID NO: 8085)
L1L2P3-B5 VH	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLE WMGFINPYNRDIKYNERFRGRVTITSDKSTTTAYMELSSLRSED TAVYYCAMGNGKWGDGAYRFFDLWGGGTLVTVSS (SEQ ID NO: 8086)
VL	DVVMQTSPSLPVTLGQPASISCRSSKNLVHSNGRTYLOWYQQRPGQSP RLLIYRVSNRFPVPDRFSGSGSGTDFTLKISRVEAEDVGVYFC <u>SQSSHIP</u> <u>YT</u> FGGGTKVEIK (SEQ ID NO: 8087)
L1L2P3-B7 VH	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLEW MGAINPYTNDIKYNERFRGRVTITSDKSTTTAYMELSSLRSED TAVYYCARGNGKWGDGAYRFFDLWGGGTLVTVSS (SEQ ID NO: 8088)
VL	DVVMQTSPSLPVTGPGEASISCRSSQNLVHSNGRTYLOWYLQKPGQSPQ

[0583] In some embodiments, the bispecific antibody comprises: (i) a first antigen binding domain comprising an scFv that binds to TRBC2 domain, and may comprise a heavy chain amino acid sequence that is at least 85%, 90%, 95%, 96%, 97%, 98%, 99% identical to the amino acid sequence:

QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYVMHWVRQAPGQGLEWMGFNIPYTNDIQYNE
RFRGRVTITSDKSTTTAYMELSSLRSEDVAVYYCARG**NGKWGDGAYRFFDL**WGQGTLLTVVSSA
STKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSL
SVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPK
DTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQ
DWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPS
DIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQ
KSLSLSPGK (SEQ ID NO: [86698001](#)).

[0584] In some embodiments, the bispecific antibody comprises: (i) a first antigen binding domain comprising an scFv that binds to TRBC2 domain, and may comprise a light chain amino acid sequence that is at least 85%, 90%, 95%, 96%, 97%, 98%, 99% identical to the amino acid sequence:

DVVMVTQSPLSLPVTLGQPASISCRSENLVHNSGRITLQWYQQRPGQSPRLLIYRVSNRFPGVDP
RFGSGSGTDFTLKISRVEAEDVGVYFCSSLEPYTFGGGKVEIKRTVAAPSVFIFPPSDEQLKS
GTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKSTYLSSTLTLSKADYEKHK
VYACEVTHQGLSPVTKSFNRGEC (SEQ ID NO: 8002).

[0585] In some embodiments, the bispecific antibody comprises: (ii) second antigen binding domain that binds to NKp30, comprising an scFv that binds to NKp30 having a sequence that is at least 85%, 90%, 95%, 96%, 97%, 98%, 99% identical to the amino acid sequence:

EIQLLESGLLVQPGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLEWVGYYSSGSTSYNPS
LKSRTISRDTSKNTFYLMNSLRAEDVAVYYCARGDWHYFDYWGGQGTMTVSSGGGGSGGG
GSGGGGSGGGGSDSVTTQSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLIYEND
RRPSGVPDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAVFGGKVEIKDKTHTCPP
CPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPR
EEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSRE
EMTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQ
GNVFCFSVMHEALHNHYTQKSLSLSPGK (SEQ ID NO: 8003).

[0586] In some embodiments, the first antigen binding domain has a higher affinity for a T cell receptor comprising TRBC2 than for a T cell receptor not comprising TRBC2, optionally wherein the KD for the binding between the first antigen binding domain and TRBC2 is no more than 40%, 30%, 20%, 10%, 1%,

thereto), and an anti-NKp30 scFv of **SEQ ID NO: 7311** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the anti-TRBC2/NKp30 antibody molecule comprises **SEQ ID NOs: 7440, 7439, and 7383** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0603] In some embodiments, the multifunctional antibody molecule comprises an anti-TRBC2 VH of **SEQ ID NO: 7420** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-TRBC2 VL of **SEQ ID NO: 7419** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-NKp30 VH of **SEQ ID NO: 7302** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), and an anti-NKp30 VL of **SEQ ID NO: 7305** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the anti-TRBC2/NKp30 antibody molecule comprises an anti-TRBC2 VH of **SEQ ID NO: 7420** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-TRBC2 VL of **SEQ ID NO: 7419** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), and an anti-NKp30 scFv of **SEQ ID NO: 7310** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the anti-TRBC2/NKp30 antibody molecule comprises **SEQ ID NOs: 7438, 7439, and ~~7383~~7384** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0604] In some embodiments, the multifunctional antibody molecule comprises an anti-TRBC2 VH of **SEQ ID NO: 7423** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-TRBC2 VL of **SEQ ID NO: 7419** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-NKp30 VH of **SEQ ID NO: 7302** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), and an anti-NKp30 VL of **SEQ ID NO: 7305** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the anti-TRBC2/NKp30 antibody molecule comprises an anti-TRBC2 VH of **SEQ ID NO: 7423** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), an anti-TRBC2 VL of **SEQ ID NO: 7419** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto), and an anti-NKp30 scFv of **SEQ ID NO: 7310** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the anti-TRBC2/NKp30 antibody molecule comprises **SEQ ID NOs: 7440, 7439, and ~~7383~~7384** (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

Table 17. Exemplary multispecific antibody molecules or parts thereof that bind to TRBC2 AND/OR NKp30

SEQ ID NO	Description	Sequence
Anti-TRBC2-NKp30-BKM0097		
SEQ ID NO: 7438	Anti-TRBC2 HC	QVQLVQSGAEVKKPGASVKVSCKASTSGFHGYPMHWVRQAPGQGLE WMGFNIPYNDDIQSNERFRGRVTMTSDKSTTTAYMELSSLRSEDNAVY YCARGNGKWGDGAYRFFDFWGQGLTVTVSSASTKGPSVFPLAPSSKST SGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSS

SEQ ID NO: 8001	Anti-TRBC 2 - BKM0 238-HC 1	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLE WMGFNPYTNDIQYNERFRGRVTITSDSTTTAYMELSSLRSED TAVYY CAMGNGKWGDGAYRFFDLWGQGLTVTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPTVSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
		VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8002	Anti-TRBC 2- BKM0 238-LC	DVVMTQSPLSLPVTLGQPASISCRSSENLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFPGVDRFSGSGSGTDFTLKISRVEAEDVGVYFCSQSLE PYTFGGGTKEIKRTVAAPSVEFIPPSDEQLKSGTASVVCLLNNFYPREA KVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKHKV YACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7383 7384 / SEQ ID NO: 8003	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYSSGSTSYNPSLKSRTISRDTSKNTFYLMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVSSGGGGSGGGSGGGSGGGSGDSVTT QSPLSLPVTLGQPASISCSGEKLSKYVHWYQQRPGQSPRMLIYENDRR PSGVDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAVFGGG TKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDV SHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQ DWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPPSREEMTK NQVSLSCAVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGDSFFLVSK LTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-2		
SEQ ID NO: 8001	Anti-TRBC 2- BKM0 238-HC 1	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWVRQAPGQGLE WMGFNPYTNDIQYNERFRGRVTITSDSTTTAYMELSSLRSED TAVYY CAMGNGKWGDGAYRFFDLWGQGLTVTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPTVSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8002	Anti-TRBC 2 - BKM0 238-LC	DVVMTQSPLSLPVTLGQPASISCRSSENLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFPGVDRFSGSGSGTDFTLKISRVEAEDVGVYFCSQSLE PYTFGGGTKEIKRTVAAPSVEFIPPSDEQLKSGTASVVCLLNNFYPREA KVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKHKV YACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7383 /SE	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYSSGSTSYNPSLKSRTISRDTSKNTFYLMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVSSGGGGSGGGSGGGSGGGSGDSVTT QSPLSLPVTLGQPASISCSGEKLSKYVHWYQQRPGQSPRMLIYENDRR PSGVDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAVFGGG

Q ID NO: 8003 ~~8006~~		TKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSREEMTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-3		
SEQ ID NO: 8004	Anti-TRBC 2 - BKM0 240-HC	QVQLVQSGAEVKKPGSSVKVSCASPRGFYGYHMHWRQAPGQGLEWMGFINPYNNHIQYNERFRGRVTITSDESTTTAYMELSSLRSEDNAVYYCALGNGKWGDGAYRFFDFWGQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8005	Anti-TRBC 2-- BKM0 240-LC	DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSPRLLIYRVSNRFPGVDRFSGSGGTDFTLKISRVEAEDVGIFYFCQSSTREPYTFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSSTYSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7383 ~~7384~~ / SEQ ID NO: 8003	Nk-p30 scFv	EIQLLESQGGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLEWVGYYISGSGTSYNPSLKSRTISRDTSKNTFYLMNSLRAEDNAVYYCARGDWHYFDYWGQGTMTVSSGGGGSGGGGSGGGGSGGGGSDSVTTQSPLSLPVTLGQPASISCSGEKLSKDYVHWYQQRPGQSPRMLIYENDRRPSGVDRFSGSNSGNDATLKISRVEAEDVGIFYFCQFWDSTNSAVFGGTTKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSREEMTKNQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-4		
SEQ ID NO: 8004	Anti-TRBC 2-- BKM0 240-HC	QVQLVQSGAEVKKPGSSVKVSCASPRGFYGYHMHWRQAPGQGLEWMGFINPYNNHIQYNERFRGRVTITSDESTTTAYMELSSLRSEDNAVYYCALGNGKWGDGAYRFFDFWGQGTLLTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8005	Anti-TRBC 2- BKM0	DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSPRLLIYRVSNRFPGVDRFSGSGGTDFTLKISRVEAEDVGIFYFCQSSTREPYTFGGGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSSTYSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

	240-LC	
SEQ ID NO: 7383 / SE Q ID NO: 8003 ~~8006~~	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYIYSSGSTSYPNPSLKS RFTISRDTSKNTFY LQMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVSSGGGGSGGGGSGGGGSGGGGSDSVTT QSPLSLPVTLGQPASISCSGEKLS DKYVHWYQQRPGQSPRMLIYENDRR PSGVPDRFSGSNSGNDATL KISRVEAEDVG VYFCQFWDSTNSAVFGGG TKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVV DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQ DWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSREEMTK NQVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSK LTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-5		
SEQ ID NO: 8007	Anti-TRBC 2-0311-HC	QVQLVQSGAEVKKPGSSVKV SCKASPRGFYGYHMHWVRQAPGQGLE WMGFINPYN NHIQYNERFRGRVTITSDESTTTAYMELSSLRSED TAVYY CALGEGKWGDGAYRFFDFWGQGT LTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVT VSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8008	Anti-TRBC 2-0311-LC	DVVMTQSPSLPVT LGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFP GVPDRFSGSGGTDFTLKISRVEAEDVG VYFCQSSTRE PYTFGGGT KVEIKRTVAAPS VFIFPPSDEQLKSGTASV VCLLN NFYPREA KVQWKVDNALQSGNSQESVTEQDSK DSTYSLSSSTLTL SKADYEKHKV YACEVTHQGLSSPVT KSFNRGEC
SEQ ID NO: 7384 / SE Q ID NO: 8006	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYIYSSGSTSYPNPSLKS RFTISRDTSKNTFY LQMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVSSGGGGSGGGGSGGGGSGGGGSSSETT QPPSVSVSPGQTASITCSGEKLS DKYVHWYQKPGQSPVMVIYENDRRP SGIPERFSGSNSGNTATLTISGTQAMDEADYFCQFWDSTNSAVFGGGTQ LTVLDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDV SHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQD WLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSREEMTKN QVSLSCAVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKL TVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-6		
SEQ ID NO: 8007	Anti-TRBC 2-0311-HC	QVQLVQSGAEVKKPGSSVKV SCKASPRGFYGYHMHWVRQAPGQGLE WMGFINPYN NHIQYNERFRGRVTITSDESTTTAYMELSSLRSED TAVYY CALGEGKWGDGAYRFFDFWGQGT LTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVT VSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI

		AVEWESNGQPENNYKTTTPVLDSDGSSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8008	Anti- TRBC 2- 0311- LC	DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFPGVDPDRFSGSGSGTDFTLKISRVEAEDVGVYFCSQSTRE PYTFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREA KVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKHKV YACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7383 /SE Q ID NO: 8003 8006	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYIYSSGSTSYNPSLKSRTISRDTSKNTFYLMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVTVSSGGGGSGGGGSGGGGSGGGGSDSVTT QSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLIYENDRR PSGVPDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAVFGGG TKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDV DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQ DWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPPSREEMTK NQVSLSCAVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSDGSSFFLVSK LTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-7		
SEQ ID NO: 8009	Anti- TRBC 2- 0314- HC	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWRQAPGQGLE WMGFNPYNNHIQYNERFRGRVTITSDESTTTAYMELSSLRSED TAVYY CALGAGKWDGAYRFFDFWGQGT LVTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVT VSWNSGALTSGVHTFPAVLQSSGLYSLSS VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSDGSSFFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8010	Anti- TRBC 2- 0314- LC	DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFPGVDPDRFSGSGSGTDFTLKISRVEAEDVGVYFCSQSTRE PYTFGGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREA KVQWKVDNALQSGNSQESVTEQDSKDYSLSTLTLSKADYEKHKV YACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7384 /SE Q ID NO: 8006	Nk-p30 scFv	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYIYSSGSTSYNPSLKSRTISRDTSKNTFYLMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVTVSSGGGGSGGGGSGGGGSGGGGSSSETT QPPSVSVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVIYENDRRP SGIPERFSGSNSGNTATLTISGTQAMDEADYFCQFWDSTNSAVFGGGTQ LTVLDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDV SHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQD WLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPPSREEMTKN QVSLSCAVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSDGSSFFLVSKL TVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
anti-TRBC2-NKp30 – BIS-2020-8		
SEQ ID NO: 8009	Anti- TRBC 2-	QVQLVQSGAEVKKPGSSVKVSCKASPRGFYGYHMHWRQAPGQGLE WMGFNPYNNHIQYNERFRGRVTITSDESTTTAYMELSSLRSED TAVYY CALGAGKWDGAYRFFDFWGQGT LVTVSSASTKGPSVFPLAPSSKSTS GGTAALGCLVKDYFPEPVT VSWNSGALTSGVHTFPAVLQSSGLYSLSS

	0314-HC	VVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPE LLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDG VEVHNAKTKPREEQYASTYRVVSVLTVLHQDWLNGKEYKCKVSNKAL PAPIEKTISKAKGQPREPQVYTLPPCREEMTKNQVSLWCLVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGSSFLYSKLTVDKSRWQQGNVFSC SVMHEALHNHYTQKSLSLSPGK
SEQ ID NO: 8010	Anti- TRBC 2- 0314- LC	DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSP RLLIYRVSNRFPGVDPDRFSGSGSGTDFTLKISRVEAEDVGVYFCSQSTRE PYTFGGGTKEIKRTVAAPSVEIFPPSDEQLKSGTASVVCLLNNFYPREA KVQWKVDNALQSGNSQESVTEQDSKDSSTLSSTLTLSKADYEKHKV YACEVTHQGLSSPVTKSFNRGEC
SEQ ID NO: 7383 /SEQ ID NO: 8003 ~~8006~~	Nk-p30 scFv	EIQLLESGLLVQPGGSLRLSCAVSGFSITTTGYHWNWVRQAPGKGLE WVGYYSSGSTSYNPSLKSRTISRTSKNTFYLMNSLRAEDTAVYYC ARGDWHYFDYWGQGTMTVSSGGGSGGGGSGGGGSGGGGSDSVTT QSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLIYENDRR PSGVPDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAVFGGG TKVEIKDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRVVSVLTVLHQ DWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSSREEMTK NQVSLSCAVKGFYPSDI AVEWESNGQPENNYKTTTPVLDSGSSFLVSK LTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

Multifunctional antibody effector function and Fc variants

[0605] In some embodiments, the multifunctional molecule (e.g., an anti-TRBC1/NKp30 antibody molecule or an anti-TRBC2/NKp30 antibody molecule) disclosed herein comprises an Fc region, e.g., as described herein. In some embodiments, the Fc region is a wildtype Fc region, e.g., a wildtype human Fc region. In some embodiments, the Fc region comprises a variant, e.g., an Fc region comprising an addition, substitution, or deletion of at least one amino acid residue in the Fc region which results in, e.g., reduced or ablated affinity for at least one Fc receptor.

[0606] The Fc region of an antibody interacts with a number of receptors or ligands including Fc Receptors (e.g., FcγRI, FcγRIIA, FcγRIIIA), the complement protein C1q, and other molecules such as proteins A and G. These interactions are essential for a variety of effector functions and downstream signaling events including: antibody dependent cell-mediated cytotoxicity (ADCC), Antibody-dependent cellular phagocytosis (ADCP) and complement dependent cytotoxicity (CDC).

[0607] In some embodiments, the multifunctional molecule (e.g., an anti-TRBC1/NKp30 antibody molecule or an anti-TRBC2/NKp30 antibody molecule) comprising a variant Fc region has reduced, e.g., ablated, affinity for an Fc receptor, e.g., an Fc receptor described herein. In some embodiments, the reduced affinity is compared to an otherwise similar antibody with a wildtype Fc region.

[0608] In some embodiments, the multifunctional molecule (e.g., an anti-TRBC1/NKp30 antibody molecule or an anti-TRBC2/NKp30 antibody molecule) comprising a variant Fc region has one or more of

[0689] In some embodiments, the antigen binding domain that binds to NKP30 comprises one or more CDRs (e.g., VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and/or VLCDR3) disclosed in Table 23 and/or Table 24, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antigen binding domain that binds to NKP30 comprises one or more framework regions (e.g., VHFWR1, VHFWR2, VHFWR3, VHFWR4, VLFWR1, VLFWR2, VLFWR3, and/or VLFWR4) disclosed in Table 23 and/or Table 24, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto. In some embodiments, the antigen binding domain that binds to NKP30 comprises a VH and/or a VL disclosed in Table 25, or a sequence having at least 85%, 90%, 95%, or 99% identity thereto.

[0690] In some embodiments, the antigen binding domain that binds to NKP30 comprises a VH comprising a heavy chain complementarity determining region 1 (VHCDR1), a VHCDR2, and a VHCDR3, and a VL comprising a light chain complementarity determining region 1 (VLCDR1), a VLCDR2, and a VLCDR3.

[0691] In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** 7313, 6001, and 7315, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** 7313, 6001, and 6002, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** 7313, 6008, and 6009, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** 7313, 7385, and 7315, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** 7313, 7318, and 6009, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), and [7315](#)~~C019, C021, and C023~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), and [7315](#)~~C033, C035, and C037~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), and [7315](#)~~C047, C049, and C051~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), and [7315](#)~~C061, C063, and C065~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some

embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs: 8053, 8688, and 7315**~~C075, C077, and C079~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs: 8053, 8688, and 7315**~~C089, C091, and C093~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs: 8053, 8688, and 7315**~~C103, C105, and C107~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, and VHCDR3 comprise the amino acid sequences of **SEQ ID NOs: 8053, 8688, and 7315**~~C116, C118, and C120~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0692] In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7326, 7327, and 7329**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 6063, 6064, and 7293**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 6070, 6071, and 6072**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 6070, 6064, and 7321**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0693] In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7313, 6001, 7315, 7326, 7327, and 7329**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7313, 6001, 6002, 6063, 6064, and 7293**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7313, 6008, 6009, 6070, 6071, and 6072**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7313, 7385, 7315, 6070, 6064, and 7321**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs: 7313, 7318, 6009, 6070, 6064, and 7321**, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3,

VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), [7315](#), [7326](#), [7327](#), and [8689](#)~~C019, C021, C023, C026, C028, and C030~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), [7315](#), [7326](#), [7327](#), and [8690](#)~~C033, C035, C037, C040, C042, and C044~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), [7315](#), [7326](#), [7327](#), and [8690](#)~~C047, C049, C051, C054, C056, and C058~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [6001](#), [7315](#), [7326](#), [7327](#), and [8689](#)~~C061, C063, C065, C068, C070, and C072~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [8688](#), [7315](#), [7326](#), [7327](#), and [7329](#)~~C075, C077, C079, C082, C084, and C086~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [8688](#), [7315](#), [7326](#), [7327](#), and [7329](#)~~C089, C091, C093, C096, C098, and C100~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [8688](#), [7315](#), [7326](#), [7327](#), and [8691](#)~~C103, C105, C107, C110, C112, and C113~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VHCDR1, VHCDR2, VHCDR3, VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [8053](#), [8688](#), [7315](#), [7326](#), [7327](#), and [8691](#)~~C116, C118, C120, C123, C125, and C127~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0694] In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326](#), [7327](#), and [8689](#)~~C026, C028, and C030~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326](#), [7327](#), and [8690](#)~~C040, C042, and C044~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326](#), [7327](#), and [8690](#)~~C054, C056, and C058~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326](#), [7327](#), and [8689](#)~~C068, C070, and C072~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326](#), [7327](#), and [7329](#)~~C082, C084, and C086~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some

embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326, 7327, and 7329](#)~~C096, C098, and C100~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326, 7327, and 8691](#)~~C110, C112, and C113~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VLCDR1, VLCDR2, and VLCDR3 comprise the amino acid sequences of **SEQ ID NOs:** [7326, 7327, and 8691](#)~~C123, C125, and C127~~, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0695] In some embodiments, the VH comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7298 or 7300-7304 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7299 or 7305-7309 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL comprise the amino acid sequences of **SEQ ID NOs:** 7302 and 7305, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL comprise the amino acid sequences of **SEQ ID NOs:** 7302 and 7309, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0696] In some embodiments, the VH comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6121 or 6123-6128 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 7294 or 6137-6141 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6122 or 6129-6134 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto) and/or the VL comprises an amino acid sequence selected from the group consisting of **SEQ ID NOs:** 6136 or 6142-6147 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL comprise the amino acid sequences of **SEQ ID NOs:** 7295 and 7296, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL comprise the amino acid sequences of **SEQ ID NOs:** 7297 and 7296, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the VH and VL comprise the amino acid sequences of **SEQ ID NOs:** 6122 and 6136, respectively (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto).

[0697] In some embodiments, the antigen binding domain that binds to NKp30 comprises the amino acid sequence of **SEQ ID NO:** 7310 (or a sequence having at least 85%, 90%, 95%, or 99% identity thereto). In some embodiments, the antigen binding domain that binds to NKp30 comprises the amino acid sequence

	SETLSLT CTVSGFSI NTG (SEQ ID NO: 6014)	NO: 6000)	EWIG (SEQ ID NO: 6015)	KS (SEQ ID NO: 6001)	KLSSVTA ADTAVYY CAR (SEQ ID NO: 6016)	(SEQ ID NO: 6002)	(SEQ ID NO: 6017)
9G1- HC_2	QIQLQES GPGLVKP SQTLST CTVSGFSI NTG (SEQ ID NO: 6018)	GYHWN (SEQ ID NO: 6000)	WIRQH PGKGL EWIG (SEQ ID NO: 6019)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	LVTISRDT SKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6020)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6021)
9G1- HC_3	EIQLLES GGGLVQ PGGSLRL SCAVSGF SINTG (SEQ ID NO: 6022)	GYHWN (SEQ ID NO: 6000)	WVRQA PGKGL EWVG (SEQ ID NO: 6023)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RFTISRDT SKNTFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6025)
9G1- HC_4	QIQLVQS GAEVKK PGSSVKV SCKVSGF SINTG (SEQ ID NO: 6026)	GYHWN (SEQ ID NO: 6000)	WVRQA PGQGL EWMG (SEQ ID NO: 6027)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RVTITRDT STNTFY ELSSLRSE DTAVYYC AR (SEQ ID NO: 6028)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6029)
9G1- HC_5	EIQLVES GGGLVQ PGGSLRL SCAVSGF SINTG (SEQ ID NO: 6030)	GYHWN (SEQ ID NO: 6000)	WVRQA PGKGL EWVG (SEQ ID NO: 6032)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RFTISRDT AKNSFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6033)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6034)
9G1- HC_6	QIQLVQS GAEVKK PGASVKV SCKVSGF SINTG (SEQ ID NO: 6035)	GYHWN (SEQ ID NO: 6000)	WVRQA PGQGL EWMG (SEQ ID NO: 6036)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RVTMTRD TSTNTFY MELSSLRS EDTAVYY CAR (SEQ ID NO: 6037)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6038)
15H6- HC_1	QIQLQES GPGLVKP SQTLST CTVSGFSI NTG (SEQ ID NO: 6039)	GYHWN (SEQ ID NO: 6007)	WIRQH PGKGL EWIG (SEQ ID NO: 6040)	YIYSSGT TRYNPS LKS (SEQ ID NO: 6008)	LVTISRDT SKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6041)	GNWHY FDY (SEQ ID NO: 6009)	WGQGT VTVSS (SEQ ID NO: 6042)

					ID NO: 6005)		
15H6-HC	QIQLQESG PGLVKPS QSLSLTCS VT (SEQ ID NO: 8555)	GFSINT GGYH WN (SEQ ID NO: 8556)	WIRQFP GKKLE WMG (SEQ ID NO: 6011)	YIYSSGT TRYNPS LKS (SEQ ID NO: 6008)	RISITRDT KNQFFLQ LNSVTPED TATYYCT R (SEQ ID NO: 6012)	GNWHY FDY (SEQ ID NO: 6009)	WGQGT VAVSS (SEQ ID NO: 6013)
9G1-HC_1	QIQLQESG PGLVKPSE TLSLTCTV S (SEQ ID NO: 8557)	GFSINT GGYH WN (SEQ ID NO: 8558)	WIRQP AGKGL EWIG (SEQ ID NO: 6015)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RVTMSRD TSKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6016)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6017)
9G1-HC_2	QIQLQESG PGLVKPS QTLSLTCT VS (SEQ ID NO: 8559)	GFSINT GGYH WN (SEQ ID NO: 8560)	WIRQH PGKGL EWIG (SEQ ID NO: 6019)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	LVTISRDT SKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6020)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6021)
9G1-HC_3	EIQLLESG GGLVQPG GSLRLSCA VS (SEQ ID NO: 8561)	GFSINT GGYH WN (SEQ ID NO: 8562)	WVRQA PGKGL EWVG (SEQ ID NO: 6023)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RFTISRDT SKNTFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6025)
9G1-HC_4	QIQLVQSG AEVKKPG SSVKVSC KVS (SEQ ID NO: 8563)	GFSINT GGYH WN (SEQ ID NO: 8564)	WVRQA PGQGL EWMG (SEQ ID NO: 6027)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RVTITRDT STNTFY ELSSLRSE DTAVYYC AR (SEQ ID NO: 6028)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6029)
9G1-HC_5	EIQLVESG GGLVQPG GSLRLSCA VS (SEQ ID NO: 8565)	GFSINT GGYH WN (SEQ ID NO: 8566)	WVRQA PGKGL EWVG (SEQ ID NO: ~~6032~~ 6032)	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RFTISRDT AKNSFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6033)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6034)
9G1-HC_6	QIQLVQSG AEVKKPG ASVKVSC KVS (SEQ	GFSINT GGYH WN (SEQ	WVRQA PGQGL EWMG (SEQ ID	YIYSSGS TSYNPSL KS (SEQ ID NO: 6001)	RVTMTRD TSTNTFY MELSSLRS EDTAVYY CAR (SEQ	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6038)

Ab ID	VHFWR1	VHCDR1	VHFWR2	VHCDR2	VHFWR3	VHCDR3	VHFWR4
9G1-HC	QIQLQESG PGLVKPS QSLSLTCS VTGFSINT G (SEQ ID NO: 7317)	GYHW N (SEQ ID NO: 7313)	WIRQFP GKKLEW MG (SEQ ID NO: 6004)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RISITRDT KNQFFLQ LNSVTTE DTATYYC AR (SEQ ID NO: 6005)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6006)
15H6-HC	QIQLQESG PGLVKPS QSLSLTCS VTGFSINT G (SEQ ID NO: 7317)	GYHW N (SEQ ID NO: 7313)	WIRQFP GKKLEW MG (SEQ ID NO: 6011)	YIYSSG TTRYNP SLKS (SEQ ID NO: 6008)	RISITRDT KNQFFLQ LNSVTPED TATYYCT R (SEQ ID NO: 6012)	GNWHY FDY (SEQ ID NO: 6009)	WGQGT VAVSS (SEQ ID NO: 6013)
9G1-HC_1	QIQLQESG PGLVKPSE TLSLTCTV SGFSINTG (SEQ ID NO: 7371)	GYHW N (SEQ ID NO: 7313)	WIRQPA GKGLEW IG (SEQ ID NO: 6015)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RVTMSRD TSKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6016)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6017)
9G1-HC_2	QIQLQESG PGLVKPS QTLSLTCT VSGFSINT G (SEQ ID NO: 7372)	GYHW N (SEQ ID NO: 7313)	WIRQHP GKGLEW IG (SEQ ID NO: 6019)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	LVTISRDT SKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6020)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6021)
9G1-HC_3	EIQLLESG GGLVQPG GSLRLSCA VSGFSINT G (SEQ ID NO: 7373)	GYHW N (SEQ ID NO: 7313)	WVRQAP GKGLEW VG (SEQ ID NO: 6023)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RFTISRDT SKNTFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6025)
9G1-HC_4	QIQLVQSG AEVKKPG SSVKVSC KVSGFSIN TG (SEQ ID NO: 7374)	GYHW N (SEQ ID NO: 7313)	WVRQAP GQGLEW MG (SEQ ID NO: 6027)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RVTITRDT STNTFY ELSSLRSE DTAVYYC AR (SEQ ID NO: 6028)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6029)
9G1-HC_5	EIQLVESG GGLVQPG GSLRLSCA VSGFSINT	GYHW N (SEQ ID NO: 7313)	WVRQAP GKGLEW VG (SEQ ID NO: 6032)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RFTISRDT AKNSFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6002)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6034)

	ID NO: 8587)	ID NO: 8588)	ID NO: 6019)	NO: 6001)	CAR (SEQ ID NO: 6020)	NO: 6002)	NO: 6021)
9G1- HC_3	EIQLLESG GGLVQPG GSLRLSCA VS (SEQ ID NO: 8589)	GFSINT GGYH WN (SEQ ID NO: 8590)	WVRQAP GKGLEW VG (SEQ ID NO: 6023)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6025)
9G1- HC_4	QIQLVQSG AEVKKPG SSVKVSC KVS (SEQ ID NO: 8591)	GFSINT GGYH WN (SEQ ID NO: 8592)	WVRQAP GQGLEW MG (SEQ ID NO: 6027)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RVTITRDT STNTFYM ELSSLRSE DTAVYYC AR (SEQ ID NO: 6028)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6029)
9G1- HC_5	EIQLVESG GGLVQPG GSLRLSCA VS (SEQ ID NO: 8593)	GFSINT GGYH WN (SEQ ID NO: 8594)	WVRQAP GKGLEW VG (SEQ ID ~~NO~~ NO: 6032)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RFTISRDT AKNSFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6033)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6034)
9G1- HC_6	QIQLVQSG AEVKKPG ASVKVSC KVS (SEQ ID NO: 8595)	GFSINT GGYH WN (SEQ ID NO: 8596)	WVRQAP GQGLEW MG (SEQ ID NO: 6036)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001)	RVTMTRD TSTNTFY MELSSLRS EDTAVYY CAR (SEQ ID NO: 6037)	GNWHY FDF (SEQ ID NO: 6002)	WGQGT MVTVSS (SEQ ID NO: 6038)
15H6- HC_1	QIQLQESG PGLVKPS QTLSTCT VS (SEQ ID NO: 8597)	GFSINT GGYH WN (SEQ ID NO: 8598)	WIRQHP GKGLEW IG (SEQ ID NO: 6040)	YIYSSG TTRYNP SLKS (SEQ ID NO: 6008)	LVTISRDT SKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6041)	GNWHY FDY (SEQ ID NO: 6009)	WGQGTL VTVSS (SEQ ID NO: 6042)
15H6- HC_2	QIQLQESG PGLVKPSE TLSTCTV S (SEQ ID NO: 8599)	GFSINT GGYH WN (SEQ ID NO: 8600)	WIRQPA GKGLEW IG (SEQ ID NO: 6044)	YIYSSG TTRYNP SLKS (SEQ ID NO: 6008)	RVTMSRD TSKNQFSL KLSSVTA ADTAVYY CAR (SEQ ID NO: 6045)	GNWHY FDY (SEQ ID NO: 6009)	WGQGTL VTVSS (SEQ ID NO: 6046)
15H6- HC_3	EIQLLESG GGLVQPG GSLRLSCA	GFSINT GGYH WN	WVRQAP GKGLEW VG (SEQ	YIYSSG TTRYNP SLKS	RFTISRDT SKNTFYL QMNSLRA	GNWHY FDY (SEQ ID	WGQGTL VTVSS (SEQ ID

nized varian t_VL5	QPASISC (SEQ ID NO: 7340)	(SEQ ID NO: 7326)	LIY (SEQ ID NO: 7341)	ID NO: 7327)	ATLKISR VEAEDV GVYFC (SEQ ID NO: 7342)	(SEQ ID NO: 7329)	(SEQ ID NO: 233)
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Table 23A. Exemplary heavy chain CDRs and FWRs of NKp30-targeting antigen binding domains

Ab ID	VHFWR1	VHCDR 1	VHFWR2	VHCDR 2	VHFWR3	VHCDR3	VHFWR4
BKM 0138	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C018)	ITTTGY HWN (~~SEQ ID~~ ~~NO:~~ ~~8019C019~~) (SEQ ID NO: ~~8053~~)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C020)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C024)	RFTISRD TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C022)	GDWHYF DY (SEQ ID NO: 7315C023)	WGQGT MVTVSS (SEQ ID NO: 6006C024)
BKM 0139	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C032)	ITTTGY HWN (SEQ ID NO: 8053C033)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C034)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C035)	RFTISRD TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C036)	GDWHYF DY (SEQ ID NO: 7315C037)	WGQGT MVTVSS (SEQ ID NO: 6006C038)
BKM 0140	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C046)	ITTTGY HWN (SEQ ID NO: 8053C047)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C048)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C049)	RFTISRD TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C050)	GDWHYF DY (SEQ ID NO: 7315C051)	WGQGT MVTVSS (SEQ ID NO: 6006C052)
BKM 0141	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C060)	ITTTGY HWN (SEQ ID NO: 8053C061)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C062)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C063)	RFTISRD TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C064)	GDWHYF DY (SEQ ID NO: 7315C065)	WGQGT MVTVSS (SEQ ID NO: 6006C066)
BKM 0142	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C074)	ITTTGY HWN (SEQ ID NO: 8053C075)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C076)	YIYSSG STSYAP SLKS (SEQ ID NO: 8688C077)	RFTISRD TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ	GDWHYF DY (SEQ ID NO: 7315C079)	WGQGT MVTVSS (SEQ ID NO: 6006C080)

					ID NO: 6024C078)		
BKM 0143	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C088)	ITTTGY HWN (SEQ ID NO: ~~€089~~ , or 8053)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C090)	YIYSSG STSYAP SLKS (SEQ ID NO: ~~8688C09~~ 4)	RFTISR TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C092)	GDWHYF DY (SEQ ID NO: 7315C093)	WGQGT MVTVSS (SEQ ID NO: 6006C094)
BKM 0144	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C102)	ITTTGY HWN (SEQ ID NO: ~~8053C10~~ 3)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C104)	YIYSSG STSYAP SLKS (SEQ ID NO: ~~8688C10~~ 5)	RFTISR TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C106)	GDWHYF DY (SEQ ID NO: 7315C107)	WGQGT MVTVSS (SEQ ID NO: 6006C108)
BKM 0145	EIQLLESGG GLVQPGGS LRLSCAVS GFS (SEQ ID NO: 8687C115)	ITTTGY HWN (SEQ ID NO: ~~8053C11~~ 6)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C117)	YIYSSG STSYAP SLKS (SEQ ID NO: ~~8688C11~~ 8)	RFTISR TSKNTFY LQMNSL RAEDTA VYYCAR (SEQ ID NO: 6024C119)	GDWHYF DY (SEQ ID NO: 7315C120)	WGQGT MVTVSS (SEQ ID NO: 6006C121)

Table 23B. Exemplary heavy chain CDRs and FWRs of NKp30-targeting antigen binding domains of Table 23A (According to the ABM numbering scheme)

Ab ID	VHFWR1	VHCDR1	VHFWR2	VHCDR 2	VHFWR3	VHCDR 3	VHFWR4
BKM 0138	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8627)	GFSITTT GYHWN (SEQ ID NO: 8628)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C020)	YIYSSG STSYNP SLKS (SEQ ID NO: ~~6001C02~~ 4)	RFTISRDT SKNTFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C022)	GDWHY FDY (SEQ ID NO: ~~7315C02~~ 3)	WGQGT MVTVSS (SEQ ID NO: 6006C024)
BKM 0139	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8629)	GFSITTT GYHWN (SEQ ID NO: 8630)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C034)	YIYSSG STSYNP SLKS (SEQ ID NO: ~~6001C03~~ 5)	RFTISRDT SKNTFY QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C036)	GDWHY FDY (SEQ ID NO: ~~7315C03~~ 7)	WGQGT MVTVSS (SEQ ID NO: 6006C038)

BKM 0140	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8631)	GFSITTT GYHWN (SEQ ID NO: 8632)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C048)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C049)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C050)	GDWHY FDY (SEQ ID NO: 7315C054)	WGQGT MVTVSS (SEQ ID NO: 6006C052)
BKM 0141	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8633)	GFSITTT GYHWN (SEQ ID NO: 8634)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C062)	YIYSSG STSYNP SLKS (SEQ ID NO: 6001C063)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C064)	GDWHY FDY (SEQ ID NO: 7315C065)	WGQGT MVTVSS (SEQ ID NO: 6006C066)
BKM 0142	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8635)	GFSITTT GYHWN (SEQ ID NO: 8636)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C076)	YIYSSG STSYAP SLKS (SEQ ID NO: 8688C077)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C078)	GDWHY FDY (SEQ ID NO: 7315C079)	WGQGT MVTVSS (SEQ ID NO: 6006C080)
BKM 0143	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8637)	GFSITTT GYHWN (SEQ ID NO: 8638)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C090)	YIYSSG STSYAP SLKS (SEQ ID NO: 8688C094)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C092)	GDWHY FDY (SEQ ID NO: 7315C093)	WGQGT MVTVSS (SEQ ID NO: 6006C094)
BKM 0144	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8639)	GFSITTT GYHWN (SEQ ID NO: 8640)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C104)	YIYSSG STSYAP SLKS (SEQ ID NO: 8688C105)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C106)	GDWHY FDY (SEQ ID NO: 7315C107)	WGQGT MVTVSS (SEQ ID NO: 6006C108)
BKM 0145	EIQLLESG GGLVQPG GSLRLSC AVS (SEQ ID NO: 8641)	GFSITTT GYHWN (SEQ ID NO: 8642)	WVRQAP GKGLEWV G (SEQ ID NO: 6023C117)	YIYSSG STSYAP SLKS (SEQ ID NO: 8688C118)	RFTISRDT SKNTFYL QMNSLRA EDTAVYY CAR (SEQ ID NO: 6024C119)	GDWHY FDY (SEQ ID NO: 7315C120)	WGQGT MVTVSS (SEQ ID NO: 6006C121)

Table 24. Exemplary light chain CDRs and FWRs of NKp30-targeting antigen binding domains

Ab ID	VLFWR1	VLCDR1	VLFWR2	VLCDR2	VLFWR3	VLCDR3	VLFWR4
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BKM 0138	DSVTTQS PLSLPVTL GQPASIS C (SEQ ID NO: 7340C025)	SGEKLS D KYVH (SEQ ID NO: 7326C026)	WYQQR P GQSPRML IY (SEQ ID NO: 7341C027)	ENDRRP S (SEQ ID NO: 7327C028)	GVPDRFS GSNSGND ATLKISRV EAEDVGV YFC (SEQ ID NO: 7342C029)	QFWD S TASAV (SEQ ID NO: 8689C030)	FGGGTK VEIK (SEQ ID NO: 233C031)
BKM 0139	DSVTTQS PLSLPVTL GQPASIS C (SEQ ID NO: 7340C039)	SGEKLS D KYVH (SEQ ID NO: 7326C040)	WYQQR P GQSPRML IY (SEQ ID NO: 7341C041)	ENDRRP S (SEQ ID NO: 7327C042)	GVPDRFS GSNSGND ATLKISRV EAEDVGV YFC (SEQ ID NO: 7342C043)	QFWAS TNSAV (SEQ ID NO: 8690C044)	FGGGTK VEIK (SEQ ID NO: 233C045)
BKM 0140	SSETTQP PSVSVSP GQTASITC (SEQ ID NO: 7335C053)	SGEKLS D KYVH (SEQ ID NO: 7326C054)	WYQQK P GQSPVMV IY (SEQ ID NO: 6106C055)	ENDRRP S (SEQ ID NO: 7327C056)	GIPERFSG SNSGNTA TLTISGTQ AMDEADY FC (SEQ ID NO: 7336C057)	QFWAS TNSAV (SEQ ID NO: 8690C058)	FGGGTQ LTVL (SEQ ID NO: 6080C059)
BKM 0141	SSETTQP PSVSVSP GQTASITC (SEQ ID NO: 7335C067)	SGEKLS D KYVH (SEQ ID NO: 7326C068)	WYQQK P GQSPVMV IY (SEQ ID NO: 6106C069)	ENDRRP S (SEQ ID NO: 7327C070)	GIPERFSG SNSGNTA TLTISGTQ AMDEADY FC (SEQ ID NO: 7336C071)	QFWD S TASAV (SEQ ID NO: 8689C072)	FGGGTQ LTVL (SEQ ID NO: 6080C073)
BKM 0142	DSVTTQS PLSLPVTL GQPASIS C (SEQ ID NO: 7340C081)	SGEKLS D KYVH (SEQ ID NO: 7326C082)	WYQQR P GQSPRML IY (SEQ ID NO: 7341C083)	ENDRRP S (SEQ ID NO: 7327C084)	GVPDRFS GSNSGND ATLKISRV EAEDVGV YFC (SEQ ID NO: 7342C085)	QFWD S TNSAV (SEQ ID NO: 7329C086)	FGGGTK VEIK (SEQ ID NO: 233C087)
BKM 0143	SSETTQP PSVSVSP GQTASITC (SEQ ID NO: 7335C095)	SGEKLS D KYVH (SEQ ID NO: 7326C096)	WYQQK P GQSPVMV IY (SEQ ID NO: 6106C097)	ENDRRP S (SEQ ID NO: 7327C098)	GIPERFSG SNSGNTA TLTISGTQ AMDEADY FC (SEQ ID NO: 7336C099)	QFWD S TNSAV (SEQ ID NO: 7329C100)	FGGGTQ LTVL (SEQ ID NO: 6080C101)
BKM 0144	DSVTTQS PLSLPVTL GQPASIS C (SEQ ID NO: 7340C109)	SGEKLS D KYVH (SEQ ID NO: 7326C110)	WYQQR P GQSPRML IY (SEQ ID NO: 7341C111)	ENDRRP S (SEQ ID NO: 7327C112)	GVPDRFS GSNSGND ATLKISRV EAEDVGV YFC	QFWAS TASAV (SEQ ID NO: 8691C113)	FGGGTK VEIK (SEQ ID NO: 233C114)

					(SEQ ID NO: 7342 ~~C085~~)		
BKM 0145	SSETTQP PSVSVSP GQTASITC (SEQ ID NO: 7335 ~~C122~~)	SGEKLS KYVH (SEQ ID NO: 7326 ~~C123~~)	WYQQKP GQSPVMV IY (SEQ ID NO: 6106 ~~C124~~)	ENDRRP S (SEQ ID NO: 7327 ~~C125~~)	GIPERFSG SNSGNTA TLTISGTQ AMDEADY FC (SEQ ID NO: 7336 ~~C126~~)	QFWAS TASAV (SEQ ID NO: 8691 ~~C127~~)	FGGGTQ LTVL (SEQ ID NO: 6080 ~~C128~~)

Table 25. Exemplary variable regions of NKp30-targeting antigen binding domains

SEQ ID NO	Ab ID	Description	Sequence
SEQ ID NO: 6121	9G1-HC	9G1 heavy chain variable region	QIQLQESGPGLVKPSQSLSLTCSVTGFSINTGGYHWNW IRQFPGKKLEWMGYIYSSGSTSYNPSLKSRSITRDTSK NQFFLQLNSVTTEDTATYYCARGNWHYFDFWGQGT MTVSS
SEQ ID NO: 6122	15H6-HC	15H6 heavy chain variable region	QIQLQESGPGLVKPSQSLSLTCSVTGFSINTGGYHWNW IRQFPGKKLEWMGYIYSSGTTRYNPSLKSRSITRDTSK NQFFLQLNSVTPEDTATYYCTRGNWHYFDYWGQGT LAVSS
SEQ ID NO: 6123	9G1-HC_1	9G1 heavy chain variable region humanized variant 1	QIQLQESGPGLVKPSETLSLTCTVSGFSINTGGYHWNW IRQPAGKGLEWIGYIYSSGSTSYNPSLKSRTVMSRDT KNQFSLKLSSVTAADTAVYYCARGNWHYFDFWGQGT MTVSS
SEQ ID NO: 6124	9G1-HC_2	9G1 heavy chain variable region humanized variant 2	QIQLQESGPGLVKPSQTLTLCTVSGFSINTGGYHWNW IRQHPGKGLEWIGYIYSSGSTSYNPSLKSRLVTISRDT SKNQFSLKLSSVTAADTAVYYCARGNWHYFDFWGQGT MTVSS
SEQ ID NO: 6125	9G1-HC_3	9G1 heavy chain variable region humanized variant 3	EIQLLESGLGLVQPGSLRLSCAVSGFSINTGGYHWN WVRQAPGKGLEWVGYYIYSSGSTSYNPSLKSRTISRDT SKNTFYLLQMNLSRAEDTAVYYCARGNWHYFDFWGQ GTMVTVSS
SEQ ID	9G1-HC_4	9G1 heavy chain	QIQLVQSGAEVKKPGSSVKVSCVSGFSINTGGYHWN WVRQAPGQGLEWMGYIYSSGSTSYNPSLKSRTITRD

	(BJM0411 VL)	humanize d variant 5	
SEQ ID NO: 7302G001	BKM0138 VH	BKM0138 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 7302G002	BKM0139 VH	BKM0139 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 7302G003	BKM0140 VH	BKM0140 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 7302G004	BKM0141 VH	BKM0141 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 8692G005	BKM0142 VH	BKM0142 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 8692G006	BKM0143 VH	BKM0143 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 8692G007	BKM0144 VH	BKM0144 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 8692G008	BKM0145 VH	BKM0145 heavy chain variable region	EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKS RFTISRDT S KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSS
SEQ ID NO: 8693G009	BKM0138 VL	BKM0138 light chain variable region	DSVTTQSPLSLPVT LGQPASISCSGEKLSDKYVHWYQQ RPGQSPRMLIYENDRRPSGVPDRFSGSNSGNDATLKIS RVEAEDVG VYFCQFWDSTASAVFGGGTKVEIK

SEQ ID NO: 8694G010	BKM0139 VL	BKM0139 light chain variable region	DSVTTQSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQ RPGQSPRMLIYENDRRPSGVPDRFSGSNSGNDATLKIS RVEAEDVG VYFCQFWASTNSAVFGGGTKVEIK
SEQ ID NO: 8695G011	BKM0140 VL	BKM0140 light chain variable region	SSETTQPPSVSVSPGQTASITCSGEKLSDKYVHWYQQK PGQSPVMVIYENDRRPSGIPERFSGSNSGNTATLTISGT QAMDEADYFCQFWASTNSAVFGGGTQLTVL
SEQ ID NO: 8696G012	BKM0141 VL	BKM0141 light chain variable region	SSETTQPPSVSVSPGQTASITCSGEKLSDKYVHWYQQK PGQSPVMVIYENDRRPSGIPERFSGSNSGNTATLTISGT QAMDEADYFCQFWDSTASAVFGGGTQLTVL
SEQ ID NO: 7309G013	BKM0142 VL	BKM0142 light chain variable region	DSVTTQSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQ RPGQSPRMLIYENDRRPSGVPDRFSGSNSGNDATLKIS RVEAEDVG VYFCQFWDSTNSAVFGGGTKVEIK
SEQ ID NO: 7305G014	BKM0143 VL	BKM0143 light chain variable region	SSETTQPPSVSVSPGQTASITCSGEKLSDKYVHWYQQK PGQSPVMVIYENDRRPSGIPERFSGSNSGNTATLTISGT QAMDEADYFCQFWDSTNSAVFGGGTQLTVL
SEQ ID NO: 8697G015	BKM0144 VL	BKM0144 light chain variable region	DSVTTQSPLSLPVTLGQPASISCSGEKLSDKYVHWYQQ RPGQSPRMLIYENDRRPSGVPDRFSGSNSGNDATLKIS RVEAEDVG VYFCQFWASTASAVFGGGTKVEIK
SEQ ID NO: 8698G016	BKM0145 VL	BKM0145 light chain variable region	SSETTQPPSVSVSPGQTASITCSGEKLSDKYVHWYQQK PGQSPVMVIYENDRRPSGIPERFSGSNSGNTATLTISGT QAMDEADYFCQFWASTASAVFGGGTQLTVL

Table 26. Exemplary NKp30-targeting antigen binding domains/antibody molecules

SEQ ID NO	Ab ID	Description	Sequence
SEQ ID NO: 6148	Ch(anti-NKp30 9G1)HC N297A	9G1 heavy chain	QIQLQESGPGLVKPSQSLSLTCSVTGFSINTGGYHWNW IRQFPGKKLEWMGYIYSSGSTSYNPSLKSRSITRDTSK NQFFLQLNSVTTEDTATYYCARGNWHYFDFWGQGT MTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVT VTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF PSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTC PPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYR VVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK AKGQPREPQVCTLPSSREEMTKNQVSLSCAVKGFYPS DIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVD KSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK
SEQ ID	Ch(anti-NKp30 9G1)HC	9G1 heavy chain	QIQLQESGPGLVKPSQSLSLTCSVTGFSINTGGYHWNW IRQFPGKKLEWMGYIYSSGSTSYNPSLKSRSITRDTSK NQFFLQLNSVTTEDTATYYCARGNWHYFDFWGQGT MTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF PEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVT VTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYF PSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTC PPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYR VVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK AKGQPREPQVCTLPSSREEMTKNQVSLSCAVKGFYPS DIAVEWESNGQPENNYKTTPPVLDSDGSFFLVSKLTVD KSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK

NO: 6187	9G1 scFv (VH-VL)	scFv of 9G1 in VH to VL orientation	VTVSSGGGGSGGGSGGGSGGGSSSYTLTQPPLLSV ALGHKATITCSGERLSDKYVHWYQQKPGRAPVMVIY ENDKRPSGIPDQFSGSNSGNIATLTISKAQAGYEADYY CQSWDSTNSAVFGSGTQLTVL
SEQ ID NO: 6188	anti- NKp30 9G1 scFv (VL-VH)	Hamster anti- NKp30 scFv of 9G1 in VL to VH orientation	SYTLTQPPLLSVALGHKATITCSGERLSDKYVHWYQQ KPGRAPVMVIYENDKRPSGIPDQFSGSNSGNIATLTISK AQAGYEADYYCQSWDSTNSAVFGSGTQLTVLGGGGS GGGSGGGSGGGGSIQLQESGPGLVKPSQSLSLTCS VTGFSINTGGYHWNWIRQFPGKKLEWMGYIYSSGSTS YNPSLKSRSITRDTSKNQFFLQLNSVTTEDTATYYCAR GNWHYFDFWGQGTMTVSS
SEQ ID NO: 6189	anti- NKp30 15H6 scFv (VH- VL)	Hamster anti- NKp30 scFv of 15H6 in VH to VL orientation	QIQLQESGPGLVKPSQSLSLTCSVTGFSINTGGYHWNW IRQFPGKKLEWMGYIYSSGTTRYNPSLKSRSITRDTSK NQFFLQLNSVTPEDTATYYCTRGNWHYFDYWGQGT VAVSSGGGGSGGGSGGGSGGGSSSYTLTQPPLSV APGQKATIICSGENLSDKYVHWYQQKPGRAPVMVIYE NEKRPSGIPDQFSGSNSGNIATLTISKAQPGSEADYYCH YWESINSVVFSGTHLTVL
SEQ ID NO: 6190	anti- NKp30 15H6 scFv (VL- VH)	Hamster anti- NKp30 scFv of 15H6 in VL to VH orientation	SYTLTQPPLSVAPGQKATIICSGENLSDKYVHWYQQK PGRAPVMVIYENNEKRPSGIPDQFSGSNSGNIATLTISKA QPGSEADYYCHYWESINSVVFSGTHLTVLGGGGSGG GGSGGGSGGGGSIQLQESGPGLVKPSQSLSLTCSVT GFSINTGGYHWNWIRQFPGKKLEWMGYIYSSGTTRYN PSLKSRSITRDTSKNQFFLQLNSVTPEDTATYYCTRGN WHYFDYWGQGTLVAVSS
SEQ ID NO: 7310	BJM0859 lambda scFv		EIQLLESGGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYIYSSGSTSYNPSLKSRTISRDT KNTFYLMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGSSSETTQPSPV SVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVI YENDRRPSGIPERFSGSNSGNTATLTISGTQAMDEADY FCQFWDSTNSAVFGGGTQLTVL
SEQ ID NO: 7311	BJM0860 kappa scFv		EIQLLESGGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYIYSSGSTSYNPSLKSRTISRDT KNTFYLMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSDSVTTQSPLS LPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLI YENDRRPSGVPDRFSGSNSGNDATLKISRVEAEDVGV YFCQFWDSTNSAVFGGGTKVEIK
SEQ ID NO: 8699C 017	BKM0138 scFv		EIQLLESGGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYIYSSGSTSYNPSLKSRTISRDT KNTFYLMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSDSVTTQSPLS LPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLI YENDRRPSGVPDRFSGSNSGNDATLKISRVEAEDVGV YFCQFWDSTASAVFGGGTKVEIK

SEQ ID NO: 8700C018	BKM0139 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSDSVTTQSPLS LPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLI YENDRRPSGVPDRFSGSNSGNDATLKISRVEAEDVGV YFCQFWASTNSAVFGGGTKVEIK
SEQ ID NO: 8701C019	BKM0140 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSSSETTQPPSV SVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVI YENDRRPSGIPERFSGSNSGNTATLTISGTQAMDEADY FCQFWASTNSAVFGGGTQLTVL
SEQ ID NO: 8702C020	BKM0141 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYNPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSSSETTQPPSV SVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVI YENDRRPSGIPERFSGSNSGNTATLTISGTQAMDEADY FCQFWDSTASAVFGGGTQLTVL
SEQ ID NO: 8703C021	BKM0142 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSDSVTTQSPLS LPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLI YENDRRPSGVPDRFSGSNSGNDATLKISRVEAEDVGV YFCQFWDSTNSAVFGGGTKVEIK
SEQ ID NO: 8704C022	BKM0143 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSSSETTQPPSV SVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVI YENDRRPSGIPERFSGSNSGNTATLTISGTQAMDEADY FCQFWDSTNSAVFGGGTQLTVL
SEQ ID NO: 8705C023	BKM0144 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSDSVTTQSPLS LPVTLGQPASISCSGEKLSDKYVHWYQQRPGQSPRMLI YENDRRPSGVPDRFSGSNSGNDATLKISRVEAEDVGV YFCQFWASTASAVFGGGTKVEIK
SEQ ID NO: 8706C024	BKM0145 scFv		EIQLLES GGGLVQPGGSLRLSCAVSGFSITTTGYHWNW VRQAPGKGLEWVGYYSSGSTSYAPSLKSRTISRDT KNTFY LQMNSLRAEDTAVYYCARGDWHYFDYWGQG TMVTVSSGGGGSGGGSGGGSGGGGSSSETTQPPSV SVSPGQTASITCSGEKLSDKYVHWYQQKPGQSPVMVI

	TYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLP PSREEMTKNQVSLTSCAVKGFPYSDIAVEWESNGQPENNYKTTTPVLDSDGSFLL VSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK (SEQ ID NO: 8286)
	NKp30 scFv ScFv <u>EIQLL</u>ESGGGLVQPGGSLRLSCAVS<u>GFSITTTGYHWN</u>WVRQAPGKGLEWVG<u>YIY</u> <u>SSGSTSYNPSLKS</u>SRFTISRDTSKNTFYLMNSLRAEDTAVYYCARGDWHYFDYW GQGTMTVTVSSGGGGSGGGGSGGGGSGGGGSDSVTTQSPLSLPVTLGQPASISCS <u>GEKLSDKYVH</u>WYQQRPGQSPRMLIY<u>ENDRRPS</u>GVPDRFSGSNSGNDATLKISRV EAEDVG VYFC<u>QFWDSTNSAV</u>FGGGGTKVEIK (SEQ ID NO: 8287)
	Heavy chain sequence <u>EIQLL</u>ESGGGLVQPGGSLRLSCAVS<u>GFSITTTGYHWN</u>WVRQAPGKGLEWVG<u>YIY</u> <u>SSGSTSYNPSLKS</u>SRFTISRDTSKNTFYLMNSLRAEDTAVYYCARGDWHYFDYW GQGTMTVTVSS (SEQ ID NO: 8030) HC-CDR1: <u>GFSITTTGYHWN</u> (SEQ ~~IS-ID~~ NO: 8288) HC-CDR2: <u>YIYSSGSTSYNPSLKS</u> (SEQ ~~IS-ID~~ NO: 8289) HC-CDR3: <u>GDWHYFDY</u> (SEQ ~~IS-ID~~ NO: 8290)
	Light Chain sequence DSVTTQSPLSLPVTLGQPASISCS<u>GEKLSDKYVH</u>WYQQRPGQSPRMLIY<u>ENDRRP</u> <u>SGVPDRFSGSNSGNDATLKISRVEAEDVGVYFCQFWDSTNSAV</u>FGGGGTKVEIK (SEQ ID NO: 7309) LC-CDR1: <u>SGEKLSDKYVH</u> (SEQ ID NO: 7326) LC-CDR2: <u>ENDRRPS</u> (SEQ ID NO: 7327) (SEQ ID NO: 8057); (~~SEQ ID NO: C052~~) LC-CDR3: <u>QFWDSTNSAV</u> (SEQ ID NO: 7329), (SEQ ID NO: 8058); (~~SEQ ID NO: C100~~)
	Linker sequence: GGGGSGGGGSGGGGSGGGGS (SEQ ID NO: 8291)
2. Anti-TRBC2-NKp30-BIS-10 BKM0314 (TRBC2/NKp30 bispecific)	
Knob chain (TRBC2)	Light Chain (LC) DVVMTQSPLSLPVTLGQPASISCRSSKNLVHSNGRTYLQWYQQRPGQSPRLLIYR <u>VSNRFP</u>GVPDRFSGSGSGTDFTLKISRVEAEDVGVYFC<u>SQSTREP</u>YTFGGGTKVEI KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQ