

longest isoform whose sequence deviates from FcRH5a at amino acid 746. FcRH5c encodes a 977-amino acid type I transmembrane glycoprotein with nine extracellular Ig-type domains harboring eight potential N-linked glycosylation sites, a 23-amino acid transmembrane domain, and a 104-amino acid cytoplasmic domain with three consensus SH2 binding motifs having an ITIM consensus.

The FcRH genes are clustered together in the midst of the classical FcR genes (FcγRI, FcγRII, FcγRIII, and FcεRI) in the 1q21-23 region of chromosome 1. This region contains one of the most frequent secondary chromosomal abnormalities associated with malignant phenotype in hematopoietic tumors, especially in multiple myeloma (Hatzivassiliou et al. *Immunity*. 14:277-89, 2001). FcRH5 is expressed only in the B-cell lineage, starting as early as pre-B-cells, but does not attain full expression until the mature B-cell stage. Unlike most known other B-cell-specific surface proteins (e.g., CD20, CD19, and CD22), FcRH5 continues to be expressed in plasma cells, whereas other B-cell-specific markers are downregulated (Polson et al. *Int. Immunol.* 18:1363-73, 2006). In addition, FcRH5 mRNA is overexpressed in multiple myeloma cell lines with 1q21 abnormalities as detected by oligonucleotide arrays (Inoue *Am. J. Pathol.* 165:71-81, 2004). The expression pattern indicates that FcRH5 could be a target for antibody-based therapies for the treatment of multiple myeloma. Multiple myeloma is a malignancy of plasma cells characterized by skeletal lesions, renal failure, anemia, and hypercalcemia, and it is essentially incurable by current therapies. Current drug treatments for multiple myeloma include combinations of the proteasome inhibitor bortezomib (VELCADE®), the immunomodulator lenalidomide (REVLIMID®), and the steroid dexamethasone.

Monoclonal antibody (mAb)-based therapy has become an important treatment modality for cancer. FcRH5c-specific antibody-based therapies and detection methods may be particularly efficacious as they specifically recognize target cell, membrane-associated FcRH5 rather than antibodies which recognize both soluble and membrane isoforms of FcRH5. However, only the last Ig-like domain of FcRH5 (Ig-like domain 9) is a unique extracellular region that differentiates between the three major isoforms of FcRH5 (e.g., FcRH5a, FcRH5b, and FcRH5c), and there is significant homology between the Ig-like domains within FcRH5. Further, the last Ig-like domain is highly conserved between FcRH1, FcRH2, FcRH3, and FcRH5. Any antibody-based therapy that specifically targeted FcRH5 should have minimal cross-reactivity with other FcRHs to avoid adverse off-target effects (e.g., FcRH3 is expressed on normal NK cells).

In view of the above, there is an unmet need in the field for safe and effective agents for use in the treatment of cell proliferative disorders (e.g., cancers, e.g., FcRH5-positive cancers, e.g., multiple myeloma).

SUMMARY

The present disclosure provides anti-FcRH5 antibodies (e.g., bispecific antibodies, e.g., FcRH5 T cell-dependant bispecific (TDB) antibodies), compositions, and methods of using the same for the treatment of cell proliferative disorders (e.g., cancers, e.g., FcRH5-positive cancers, e.g., multiple myeloma).

Provided is an anti-Fc Receptor-like 5 (FcRH5) antibody, wherein the anti-FcRH5 antibody comprises the following six hypervariable regions (HVRs): (a) an HVR-H1 comprising the

amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 2, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 3, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 4, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 5, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 6.

5 In one aspect, there is provided an anti-Fc Receptor-like 5 (FcRH5) antibody, wherein the anti-FcRH5 antibody comprises:

(i) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;

(ii) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 10;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 14;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;

(iii) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 21;

(iv) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 17; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 22;

(v) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 13;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and

- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 21;
- (vi) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;
- (vii) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 18; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 22;
- (viii) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 19; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 24; or
- (ix) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 18; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 25.

In some embodiments, the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23. In some embodiments, the binding domain comprises (a) a heavy chain variable (VH) domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 104, (b) a light chain variable (VL) domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 105, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the

following heavy chain variable region framework regions (FRs): (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 104. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 105. In another aspect, there is provided an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 105.

In other embodiments, the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 10, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 14, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 106, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 107, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 53, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 106. In some

embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 107. In another aspect, there is provided an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 106 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 107.

In other embodiments, the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 15, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 20. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 82, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 83, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 82. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 56, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 83. Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 82 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 83.

In other embodiments, the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 21. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 84, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 85, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid

an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 18, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 25. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 100, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 101, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 100. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 101. In another aspect, there is provided an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 100 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 101.

In other embodiments, the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 15, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 20. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 102, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 103, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 102. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 56, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 103. Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 102 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 103.

Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:

32, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 33, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 34, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 35, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 36, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 37. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 110, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 111, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 66, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 67, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 68, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 69. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 110. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 70, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 71, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 72, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 73. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 111. Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 110 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 111.

20 Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 38, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 39, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 40, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 41, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 42, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 43. In other embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 112, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 113, or (c) a VH domain as in (a) and a VL domain as in (b). In other embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 74, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 75, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 76, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 77. In other embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 112. In other embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 78, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 79, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 80, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 81. In other embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 113. Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain

comprising an amino acid sequence of SEQ ID NO: 112 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 113.

Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 26, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 27, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 28, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 29, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 30, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 31. In some embodiments, the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 108, (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 109, or (c) a VH domain as in (a) and a VL domain as in (b). In some embodiments, the antibody further comprises the following heavy chain variable region FRs: (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 58, (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 59, (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 60, and (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 61. In some embodiments, the VH domain comprises the amino acid sequence of SEQ ID NO: 108. In some embodiments, the antibody further comprises the following light chain variable region FRs: (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 62, (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 63, (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 64, and (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 65. In some embodiments, the VL domain comprises the amino acid sequence of SEQ ID NO: 109. Provided is an anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 108 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 109.

In some embodiments of any one of the preceding aspects, the anti-FcRH5 antibody binds to an epitope in the Ig-like domain 9 of FcRH5. In some embodiments, the epitope comprises a portion of amino acids 743-850 of SEQ ID NO: 114. In some embodiments, the binding domain binds to human FcRH5, cynomolgus monkey (cyno) FcRH5, or both. In some embodiments, the binding domain does not specifically bind to FcRH1, FcRH2, FcRH3, and/or FcRH4. In some embodiments, the anti-FcRH5 antibody binds human FcRH5 with a K_D of about 100 nM or lower. In some embodiments, the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 10 pM and about 100 nM. In some embodiments, the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 100 pM and about 100 nM. In some embodiments, the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 1 nM and about 20 nM. In some embodiments, the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 1 nM and about 10 nM. In some embodiments, the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of about 100 nM or lower. In some embodiments, the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 10 pM and about 100 nM. In some embodiments, the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 100 pM and about 100 nM. In some embodiments, the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 1 nM and about 50 nM.

amino acid sequence of SEQ ID NO: 9, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23, and an anti-CD3 arm comprising a second binding domain comprising the following six HVRs: (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115, (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116, (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121, (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118, (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119, and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123, and wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations, and wherein the anti-CD3 arm comprises a light chain comprising Q38E, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39K, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

In another aspect, there is provided an anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises: (a) an anti-FcRH5 arm comprising a first binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and a VL domain comprising an amino acid sequence of SEQ ID NO: 105, wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations, and (b) an anti-CD3 arm comprising a second binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and a VL domain comprising an amino acid sequence of SEQ ID NO: 134, wherein the anti-CD3 arm comprises a light chain comprising Q38E, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39K, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

In some embodiments of any one of the preceding aspects, the anti-FcRH5 antibody has a clearance following intravenous injection of between about 10 ml/kg/day to about 35 ml/kg/day. In some embodiments, the anti-FcRH5 antibody has a clearance following intravenous injection of about 10 ml/kg/day to about 20 ml/kg/day in a mouse. In some embodiments, the anti-FcRH5 antibody has a clearance following intravenous injection of about 12 ml/kg/day to about 16 ml/kg/day in a mouse. In some embodiments, the anti-FcRH5 antibody has a clearance following intravenous injection of about 20 ml/kg/day to about 40 ml/kg/day in a cyno. In some embodiments, the anti-FcRH5 antibody has a clearance following intravenous injection of about 25 ml/kg/day to about 35 ml/kg/day in a cyno. In some embodiments, the anti-FcRH5 antibody has a clearance following intravenous injection of about 30 ml/kg/day to about 35 ml/kg/day in a cyno.

In another aspect, there is provided one or more isolated nucleic acids encoding an anti-FcRH5 antibody of any one of the preceding aspects, or an antigen-binding fragment thereof.

In another aspect, there is provided one or more vectors comprising the one or more isolated nucleic acids of the previous aspect.

In another aspect, there is provided one or more host cells comprising the one or more vectors of the previous aspect. In some embodiments, the host cell is a mammalian cell. In some embodiments, the mammalian cell is a Chinese hamster ovary (CHO) cell. In some embodiments, the host cell is a prokaryotic cell. In some embodiments, the prokaryotic cell is an *E. coli* cell.

5 In another aspect, there is provided a method of producing an anti-FcRH5 antibody of any one of the preceding aspects, the method comprises culturing the one or more host cells of the previous aspect in a culture medium. In some embodiments, the method further comprises recovering the anti-FcRH5 antibody from the host cell or the culture medium. In some embodiments, the method further comprising culturing a second host cell comprising a second nucleic acid encoding an anti-CD3 antibody that comprises a binding
10 domain that binds CD3. In some embodiments, the host cells are co-cultured. In some embodiments, the method further comprises recovering the bispecific anti-FcRH5 antibody from the host cells or the culture medium.

In another aspect, there is provided an immunoconjugate comprising an anti-FcRH5 antibody of any one of the previous aspects and a cytotoxic agent.

15 In another aspect, there is provided a composition comprising an anti-FcRH5 antibody of any one of the previous aspects. In some embodiments, the composition further comprising a pharmaceutically acceptable excipient or diluent. In some embodiments, the pharmaceutically acceptable excipient is a buffer, carrier, stabilizer, or preservative. In some embodiments, the composition is a pharmaceutical composition. In some embodiments, the composition further comprises a PD-1 axis binding antagonist or an additional
20 therapeutic agent.

In another aspect, there is provided an anti-FcRH5 antibody of any one of the preceding aspects for use as a medicament.

In another embodiment, there is provided an anti-FcRH5 antibody of any one of the preceding aspects for use in treating or delaying progression of an FcRH5-positive cancer in a subject in need thereof.

25 In another embodiment, there is provided an anti-FcRH5 antibody of any one of the preceding aspects for use in enhancing immune function in a subject having an FcRH5-positive cancer. In some embodiments, the FcRH5-positive cancer is a B cell cancer. In another embodiment, the B cell cancer is selected from the group consisting of multiple myeloma (MM), chronic lymphoid leukemia (CLL), mantle cell lymphoma (MCL), diffuse large B-cell lymphoma (DLBCL), and follicular lymphoma (FL). In another
30 embodiment, the B cell cancer is MM.

In another aspect, there is provided use of an anti-FcRH5 antibody or a composition of any one of the previous aspects in the manufacture of a medicament for treating or delaying progression of an FcRH5-positive cancer in a subject. In another aspect, there is provided use of an anti-FcRH5 antibody or a composition of any one of the previous aspects in the manufacture of a medicament for enhancing immune
35 function in a subject having an FcRH5-positive cancer. In some embodiments, the FcRH5-positive cancer is a B cell cancer. In some embodiments, the B cell cancer is selected from the group consisting of MM, CLL, MCL, DLBCL, and FL. In some embodiments, the B cell cancer is MM.

In another embodiment, there is provided a method of treating or delaying the progression of an FcRH5-positive cancer in a subject in need thereof, the method comprising administering to the subject

CLAIMS

What is claimed is:

1. An anti-Fc Receptor-like 5 (FcRH5) antibody, wherein the anti-FcRH5 antibody comprises:

(i) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;

(ii) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 10;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 14;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;

(iii) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 21;

(iv) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 17; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 22;

(v) a binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 13;

- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 21;
- (vi) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23;
- (vii) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 18; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 22;
- (viii) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 11;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 19; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 24; or
- (ix) a binding domain comprising the following six HVRs:
 - (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
 - (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 7;
 - (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
 - (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
 - (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 18; and
 - (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 25.

2. The anti-FcRH5 antibody of claim 1(i), wherein the binding domain comprises (a) a heavy chain variable (VH) domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 104; (b) a light chain variable (VL) domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 105; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region framework regions (FRs):

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;
(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;
(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and
(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 104; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 105.

3. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 105.

4. The anti-FcRH5 antibody of claim 1(ii), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 106; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 107; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 53;
(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;
(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and
(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 106; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 107.

5. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 106 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 107.

6. The anti-FcRH5 antibody of claim 1(iii), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 84; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 85; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally VH domain comprises the amino acid sequence of SEQ ID NO: 84; and wherein optionally the antibody further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
- (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 85.

7. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 84 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 85.

8. The anti-FcRH5 antibody of claim 1(iv), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 86; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 87; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 86; and wherein optionally the antibody further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and

(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 87.

9. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 86 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 87.

10. The anti-FcRH5 antibody of claim 1(v), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 88; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 89; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;

(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 88; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;

(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;

(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and

(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 89.

11. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 88 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 89.

12. The anti-FcRH5 antibody of claim 1(vi), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 90; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 91; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;

- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 90; and wherein optionally the antibody further comprises the following light chain variable region FRs:
 - (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
 - (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
 - (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
 - (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 91.

13. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 90 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 91.

14. The anti-FcRH5 antibody of claim 1(vii), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 92; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 93; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 92; and wherein optionally the antibody further comprises the following light chain variable region FRs:
 - (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
 - (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 56;
 - (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
 - (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 93.

15. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 92 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 93.

16. The anti-FcRH5 antibody of claim 1(viii), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 94; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 95; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;

(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 94; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;

(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;

(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and

(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 95.

17. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 94 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 95.

18. The anti-FcRH5 antibody of claim 1(ix), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 96; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 97; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 53;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;

(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 96; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;

(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;

(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and

(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 97.

19. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 96 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 97.

20. The anti-FcRH5 antibody of claim 1(ix), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 98; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 99; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 55;

(c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and

(d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 98; and wherein optionally the antibody further comprises the following light chain variable region FRs:

(a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;

(b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;

(c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and

(d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 99.

21. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 98 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 99.

22. The anti-FcRH5 antibody of claim 1(ix), wherein the binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 100; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 101; or (c) a VH domain as in (a) and a VL domain as in (b); wherein optionally the antibody further comprises the following heavy chain variable region FRs:

(a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 52;

(b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 54;

- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 46; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 47, wherein optionally the VH domain comprises the amino acid sequence of SEQ ID NO: 100; and wherein optionally the antibody further comprises the following light chain variable region FRs:
 - (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 48;
 - (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 57;
 - (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 50; and
 - (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 51, wherein optionally the VL domain comprises the amino acid sequence of SEQ ID NO: 101.

23. An anti-FcRH5 antibody, wherein the anti-FcRH5 antibody comprises a binding domain comprising (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 100 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 101.

24. The anti-FcRH5 antibody of any one of claims 1-23, wherein the anti-FcRH5 antibody binds to an epitope in the Ig-like domain 9 of FcRH5; wherein optionally the epitope comprises a portion of amino acids 743-850 of SEQ ID NO: 114.

25. The anti-FcRH5 antibody of claim 24, wherein the binding domain binds to human FcRH5 or cynomolgus monkey (cyno) FcRH5 or both; wherein optionally the binding domain does not specifically bind to FcRH1, FcRH2, FcRH3, and/or FcRH4.

26. The anti-FcRH5 antibody of claim 25, wherein the anti-FcRH5 antibody binds human FcRH5 with a K_D of about 100 nM or lower; wherein optionally the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 10 pM and about 100 nM; wherein optionally the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 100 pM and about 100 nM; wherein optionally the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 1 nM and about 20 nM; and wherein optionally the anti-FcRH5 antibody binds human FcRH5 with a K_D of between about 1 nM and about 10 nM.

27. The anti-FcRH5 antibody of claim 26, wherein the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of about 100 nM or lower; wherein optionally the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 10 pM and about 100 nM; wherein optionally the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 100 pM and about 100 nM; and wherein optionally the anti-FcRH5 antibody binds cyno FcRH5 with a K_D of between about 1 nM and about 50 nM.

28. The anti-FcRH5 antibody of any one of claims 1-27, wherein the anti-FcRH5 antibody comprises a substitution mutation.
29. The anti-FcRH5 antibody of claim 28, wherein the substitution mutation reduces effector function of the anti-FcRH5 antibody.
30. The anti-FcRH5 antibody of claim 28 or 29, wherein the substitution mutation is at amino acid residue N297, L234, L235, D265, and/or P329 (EU numbering); wherein optionally the substitution mutation is selected from the group consisting of N297G, N297A, L234A, L235A, D265A, and P329G; and wherein optionally the substitution mutation is an N297G mutation.
31. The anti-FcRH5 antibody of any one of claims 1-30, wherein the anti-FcRH5 antibody is a monoclonal, human, humanized, or chimeric antibody; wherein optionally the anti-FcRH5 antibody is an IgG antibody.
32. The anti-FcRH5 antibody of any one of claims 1-31, wherein the anti-FcRH5 antibody is an antibody fragment that binds FcRH5; wherein optionally the antibody fragment is selected from the group consisting of bis-Fab, Fab, Fab'-SH, Fv, scFv, and (Fab')₂ fragments; and wherein optionally the antibody fragment is a bis-Fab fragment.
33. The anti-FcRH5 antibody of any one of claims 1-31, wherein the anti-FcRH5 antibody is a full-length antibody.
34. The anti-FcRH5 antibody of any one of claims 1-33, wherein the anti-FcRH5 antibody is (a) a monospecific antibody; or (b) a multispecific antibody.
35. The anti-FcRH5 antibody of claim 34(b), wherein the multispecific antibody is a bispecific antibody.
36. The anti-FcRH5 antibody of claim 35, wherein the bispecific antibody comprises a second binding domain that binds cluster of differentiation 3 (CD3).
37. The anti-FcRH5 antibody of claim 36, wherein the second binding domain binds to an epitope on CD3 comprising amino acid residue Glu6 of CD3.
38. The anti-FcRH5 antibody of claim 37, wherein the epitope further comprises one or more additional amino acid residues selected from the group consisting of Gln1, Asp2, and Met7 of CD3.

39. The anti-FcRH5 antibody of claim 37 or 38, wherein the epitope comprises amino acid residues Gln1, Asp2, and Glu6 of CD3; wherein optionally the epitope comprises amino acid residues Gln1, Asp2, Glu6, and Met7 of CD3; wherein optionally the epitope does not comprise amino acid residue Glu5 of CD3; wherein optionally the epitope does not comprise amino acid residues Gly3 and Glu5 of CD3; and wherein optionally the epitope consists of amino acid residues Gln1, Asp2, Glu6, and Met7 of CD3.

40. The anti-FcRH5 antibody of any one of claims 37-39, wherein the second binding domain is capable of binding to a human CD3 polypeptide or a cyno CD3 polypeptide; wherein optionally the human CD3 polypeptide or the cyno CD3 polypeptide is a human CD3 ϵ polypeptide or a cyno CD3 ϵ polypeptide, respectively; or a human CD3 γ polypeptide or a cyno CD3 γ polypeptide, respectively.

41. The anti-FcRH5 antibody of any one of claims 36-40, wherein the second binding domain binds the human CD3 ϵ polypeptide with a K_D of about 100 nM or lower; wherein optionally the second binding domain binds the human CD3 ϵ polypeptide with a K_D of between about 10 pM to about 100 nM; wherein optionally wherein the second binding domain binds the human CD3 ϵ polypeptide with a K_D of between about 100 pM to about 50 nM; and wherein optionally wherein the second binding domain binds the human CD3 ϵ polypeptide with a K_D of between about 1 nM to about 10 nM.

42. The anti-FcRH5 antibody of any one of claims 36-41, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 117;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 120.

43. The anti-FcRH5 antibody of claim 42, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; wherein optionally

the second binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 133; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 134; or (c) a VH domain as in (a) and a VL domain as in (b).

44. The anti-FcRH5 antibody of claim 43, wherein the second binding domain comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 125;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 126;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 127; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 128; wherein optionally the second binding domain comprises a VH domain comprising the amino acid sequence of SEQ ID NO: 133.

45. The anti-FcRH5 antibody of claim 43 or 44, wherein the second binding domain further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 129;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 130;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 131; and
- (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 132; wherein optionally the second binding domain comprises a VL domain comprising the amino acid sequence of SEQ ID NO: 134.

46. The anti-FcRH5 antibody of any one of claims 43-45, wherein the second binding domain comprises (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 134.

47. The anti-FcRH5 antibody of claim 42, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 124; wherein optionally the second binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 137; (b) a VL domain comprising an

amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 138; or (c) a VH domain as in (a) and a VL domain as in (b).

48. The anti-FcRH5 antibody of claim 47, wherein the second binding domain comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 125;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 126;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 127; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 128; wherein optionally the second binding domain comprises a VH domain comprising the amino acid sequence of SEQ ID NO: 137.

49. The anti-FcRH5 antibody of claim 47 or 48, wherein the second binding domain further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 129;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 130;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 131; and
- (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 132; wherein optionally the second binding domain comprises a VL domain comprising the amino acid sequence of SEQ ID NO: 138.

50. The anti-FcRH5 antibody of any one of claims 47-49, wherein the second binding domain comprises (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 137 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 138.

51. The anti-FcRH5 antibody of any one of claims 36-41, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 139;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 140;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 141;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 142;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 143; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 144; wherein optionally the second binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 153; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 154; or (c) a VH domain as in (a) and a VL domain as in (b).

52. The anti-FcRH5 antibody of claim 51, wherein the second binding domain comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 145;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 146;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 147; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 148; wherein optionally the second binding domain comprises a VH domain comprising the amino acid sequence of SEQ ID NO: 153.

53. The anti-FcRH5 antibody of claim 51 or 52, wherein the second binding domain further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 149;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 150;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 151; and
- (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 152; wherein optionally the second binding domain comprises a VL domain comprising the amino acid sequence of SEQ ID NO: 154.

54. The anti-FcRH5 antibody of any one of claims 51-53, wherein the second binding domain comprises (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 153 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 154.

55. The anti-FcRH5 antibody of any one of claims 36-41, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 155;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 156;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 157;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 158;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 159; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 160.

56. The anti-FcRH5 antibody of claim 55, wherein the second binding domain comprises the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 155;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 162;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 157;

- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 158;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 159; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 160; wherein optionally the second binding domain comprises (a) a VH domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 172; (b) a VL domain comprising an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO: 173; or (c) a VH domain as in (a) and a VL domain as in (b).

57. The anti-FcRH5 antibody of claim 56, wherein the second binding domain comprises the following heavy chain variable region FRs:

- (a) an FR-H1 comprising the amino acid sequence of SEQ ID NO: 164;
- (b) an FR-H2 comprising the amino acid sequence of SEQ ID NO: 165;
- (c) an FR-H3 comprising the amino acid sequence of SEQ ID NO: 166; and
- (d) an FR-H4 comprising the amino acid sequence of SEQ ID NO: 167; wherein optionally the second binding domain comprises a VH domain comprising the amino acid sequence of SEQ ID NO: 172.

58. The anti-FcRH5 antibody claim 56 or 57, wherein the second binding domain further comprises the following light chain variable region FRs:

- (a) an FR-L1 comprising the amino acid sequence of SEQ ID NO: 168;
- (b) an FR-L2 comprising the amino acid sequence of SEQ ID NO: 169;
- (c) an FR-L3 comprising the amino acid sequence of SEQ ID NO: 170; and
- (d) an FR-L4 comprising the amino acid sequence of SEQ ID NO: 171; wherein optionally the second binding domain comprises a VL domain comprising the amino acid sequence of SEQ ID NO: 173.

59. The anti-FcRH5 antibody of any one of claims 56-58, wherein the second binding domain comprises (a) a VH domain comprising an amino acid sequence of SEQ ID NO: 172 and (b) a VL domain comprising an amino acid sequence of SEQ ID NO: 173.

60. The anti-FcRH5 antibody of any one of claims 36-59, wherein the binding domain that binds FcRH5 comprises a VH domain (VH₁) comprising a charged region (CR₁) and a VL domain (VL₁) comprising a charged region (CR₂), wherein the CR₁ in the VH₁ forms a charge pair with the CR₂ in the VL₁; wherein optionally the CR₁ comprises a basic amino acid residue and the CR₂ comprises an acidic amino acid residue; wherein optionally the CR₁ comprises a Q39K substitution mutation (EU numbering); and wherein optionally the CR₁ consists of the Q39K substitution mutation.

61. The anti-FcRH5 antibody of claim 60, wherein the CR₂ comprises a Q38E substitution mutation (EU numbering); wherein optionally the CR₂ consists of the Q38E substitution mutation.

62. The anti-FcRH5 antibody of claim 60 or 61, wherein the second binding domain that binds CD3 comprises a VH domain (VH₂) comprising a charged region (CR₃) and a VL domain (VL₂) comprising a charged region (CR₄), wherein the CR₄ in the VL₂ forms a charge pair with the CR₃ in the VH₂; wherein optionally the CR₄ comprises a basic amino acid residue and the CR₃ comprises an acidic amino acid residue; wherein optionally the CR₄ comprises a Q38K substitution mutation (EU numbering); and wherein optionally the CR₄ consists of the Q38K substitution mutation.

63. The anti-FcRH5 antibody of claim 62, wherein the CR₃ comprises a Q39E substitution mutation (EU numbering); wherein optionally the CR₃ consists of the Q39E substitution mutation.

64. The anti-FcRH5 antibody of any one of claims 60-63, wherein the VL₁ domain is linked to a light chain constant (CL) domain (CL₁) and the VH₁ is linked to a first heavy chain constant (CH1) domain (CH1₁), wherein the CL₁ comprises a charged region (CR₅) and the CH1₁ comprises a charged region (CR₆), and wherein the CR₅ in the CL₁ forms a charge pair with the CR₆ in the CH1₁; wherein optionally the CR₅ comprises a basic amino acid residue and the CR₆ comprises an acidic residue; wherein optionally the CR₅ comprises a V133K substitution mutation (EU numbering); and wherein optionally the CR₅ consists of the V133K substitution mutation.

65. The anti-FcRH5 antibody of any one of claims 65, wherein the CR₆ comprises a S183E substitution mutation (EU numbering); wherein optionally the CR₆ consists of the S183E substitution mutation.

66. The anti-FcRH5 antibody of claim 64 or 65, wherein the VL₂ domain is linked to a CL domain (CL₂) and the VH₂ is linked to a CH1 domain (CH1₂), wherein the CL₂ comprises a charged region (CR₇) and the CH1₂ comprise a charged region (CR₈), and wherein the CR₈ in the CH1₂ forms a charge pair with the CR₇ in the CL₂; wherein optionally the CR₈ comprises a basic amino acid residue and the CR₇ comprises an acidic amino acid residue; wherein optionally the CR₈ comprises a S183K substitution mutation (EU numbering); and wherein optionally the CR₈ consists of the S183K substitution mutation.

67. The anti-FcRH5 antibody of claim 66, wherein the CR₇ comprises a V133E substitution mutation (EU numbering); wherein optionally the CR₇ consists of the V133E substitution mutation.

68. The anti-FcRH5 antibody of claim 64 or 65, wherein the VL₂ domain is linked to a CL domain (CL₂) and the VH₂ is linked to a CH1 domain (CH1₂), wherein (a) the CL₂ comprises one or more

mutations at amino acid residues F116, L135, S174, S176, and/or T178 (EU numbering) and (b) the CH₁₂ comprises one or more mutations at amino acid residues A141, F170, S181, S183, and/or V185 (EU numbering); wherein optionally the CL₂ comprises one or more of the following substitution mutations: F116A, L135V, S174A, S176F, and/or T178V; and wherein optionally the CL₂ comprises the following substitution mutations: F116A, L135V, S174A, S176F, and T178V.

69. The anti-FcRH5 antibody of claim 68, wherein the CH₁₂ comprises one or more of the following substitution mutations: A141I, F170S, S181M, S183A, and/or V185A; wherein optionally the CH₁₂ comprises the following substitution mutations: A141I, F170S, S181M, S183A, and V185A.

70. The anti-FcRH5 antibody of any one of claims 36-59, wherein the binding domain that binds FcRH5 comprises a VH domain (VH₁) comprising a charged region (CR₁) and a VL domain (VL₁) comprising a charged region (CR₂), wherein the CR₂ in the VL₁ forms a charge pair with the CR₁ in the VH₁; wherein optionally the CR₂ comprises a basic amino acid residue and the CR₁ comprises an acidic amino acid residue; wherein optionally the CR₂ comprises a Q38K substitution mutation (EU numbering); and wherein optionally the CR₂ consists of the Q38K substitution mutation.

71. The anti-FcRH5 antibody of claim 70, wherein the CR₁ comprises a Q39E substitution mutation (EU numbering); wherein optionally the CR₁ consists of the Q39E substitution mutation.

72. The anti-FcRH5 antibody of claim 70 or 71, wherein the second binding domain that binds CD3 comprises a VH domain (VH₂) comprising a charged region (CR₃) and a VL domain (VL₂) comprising a charged region (CR₄), wherein the CR₃ in the VH₂ forms a charge pair with the CR₄ in the VL₂; wherein optionally the CR₃ comprises a basic amino acid residue and the CR₄ comprises an acidic amino acid residue; wherein optionally the CR₃ comprises a Q39K substitution mutation (EU numbering); and wherein optionally the CR₃ consists of the Q39K substitution mutation.

73. The anti-FcRH5 antibody of claim 72, wherein the CR₄ comprises a Q38E substitution mutation (EU numbering); wherein optionally the CR₄ consists of the Q38E substitution mutation.

74. The anti-FcRH5 antibody of any one of claims 70-73, wherein the VL₁ domain is linked to a light chain constant (CL) domain (CL₁) and the VH₁ is linked to a first heavy chain constant (CH1) domain (CH1₁), wherein the CL₁ comprises a charged region (CR₅) and the CH1₁ comprises a charged region (CR₆), and wherein the CR₆ in the CH1₁ forms a charge pair with the CR₅ in the CL₁; wherein optionally the CR₆ comprises a basic amino acid residue and the CR₅ comprises an acidic amino acid residue; wherein optionally the CR₆ comprises a S183K substitution mutation (EU numbering); and wherein optionally the CR₆ consists of the S183K substitution mutation.

75. The anti-FcRH5 antibody of claim 74, wherein the CR₅ comprises a V133E substitution mutation (EU numbering); wherein optionally the CR₅ consists of the V133E substitution mutation.

76. The anti-FcRH5 antibody of claim 74 or 75, wherein the VL₂ domain is linked to a CL domain (CL₂) and the VH₂ is linked to a CH1 domain (CH1₂), wherein the CL₂ comprises a charged region (CR₇) and the CH1₂ comprises a charged region (CR₈), and wherein the CR₇ in the CL₂ forms a charged pair with the CR₈ in the CH1₂; wherein optionally the CR₇ comprises a basic amino acid residue and the CR₈ comprises an acidic residue; wherein optionally the CR₇ comprises a V133K substitution mutation (EU numbering); and wherein optionally the CR₇ consists of the V133K substitution mutation.

77. The anti-FcRH5 antibody of claim 76, wherein the CR₈ comprises a S183E substitution mutation (EU numbering); wherein optionally the CR₈ consists of the S183E substitution mutation.

78. The anti-FcRH5 antibody of claim 74 or 75, wherein the VL₂ domain is linked to a CL domain (CL₂) and the VH₂ is linked to a CH1 domain (CH1₂), wherein (a) the CL₂ comprises one or more mutations at amino acid residues F116, L135, S174, S176, and/or T178 (EU numbering) and (b) the CH1₂ comprises one or more mutations at amino acid residues A141, F170, S181, S183, and/or V185 (EU numbering); wherein optionally the CL₂ comprises one or more of the following substitution mutations: F116A, L135V, S174A, S176F, and/or T178V; and wherein optionally the CL₂ comprises the following substitution mutations: F116A, L135V, S174A, S176F, and T178V.

79. The anti-FcRH5 antibody of claim 78, wherein the CH1₂ comprises one or more of the following substitution mutations: A141I, F170S, S181M, S183A, and/or V185A; wherein optionally the CH1₂ comprises the following substitution mutations: A141I, F170S, S181M, S183A, and V185A.

80. The anti-FcRH5 antibody of any one of claims 60-79, wherein the anti-FcRH5 antibody comprises one or more heavy chain constant domains, wherein the one or more heavy chain constant domains are selected from a first CH2 domain (CH2₁), a first CH3 domain (CH3₁), a second CH2 domain (CH2₂), and a second CH3 domain (CH3₂); wherein optionally at least one of the one or more heavy chain constant domains is paired with another heavy chain constant domain; wherein optionally the CH3₁ and the CH3₂ each comprise a protuberance (P₁) or a cavity (C₁), and wherein the P₁ or the C₁ in the CH3₁ is positionable in the C₁ or the P₁, respectively, in the CH3₂; and wherein optionally the CH3₁ and the CH3₂ meet at an interface between the P₁ and the C₁.

81. The anti-FcRH5 antibody of claim 80, wherein P1 comprises a T366W substitution mutation (EU numbering) and/or C1 comprises one or more mutations selected from the group consisting of T366S, L368A, and Y407 substitution mutations (EU numbering).

82. The anti-FcRH5 antibody of claim 80, wherein the CH2₁ and the CH2₂ each comprise (P₂) or a cavity (C₂), and wherein the P₂ or the C₂ in the CH2₁ is positionable in the C₂ or the P₂, respectively, in the CH2₂; wherein optionally the CH2₁ and the CH2₂ meet at an interface between the P₂ and the C₂.

83. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises an anti-FcRH5 arm comprising a first binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23; and

an anti-CD3 arm comprising a second binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; and

wherein the anti-FcRH5 arm and the anti-CD3 arm each comprise an N297G substitution mutation (EU numbering); and wherein the anti-FcRH5 arm comprises a T366W substitution mutation and the anti-CD3 arm comprises T366S, L368A, and Y407V substitution mutations.

84. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises an anti-FcRH5 arm comprising a first binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23; and

an anti-CD3 arm comprising a second binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;

- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; and

wherein the anti-FcRH5 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations; and wherein the anti-CD3 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations (EU numbering).

85. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises:

(a) an anti-FcRH5 arm comprising a first binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and a VL domain comprising an amino acid sequence of SEQ ID NO: 105, wherein the anti-FcRH5 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations; and

(b) an anti-CD3 arm comprising a second binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and a VL domain comprising an amino acid sequence of SEQ ID NO: 134, wherein the anti-CD3 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations (EU numbering).

86. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises an anti-FcRH5 arm comprising a first binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23; and

an anti-CD3 arm comprising a second binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and

(f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; and wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations; and wherein the anti-CD3 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations (EU numbering).

87. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises:

(a) an anti-FcRH5 arm comprising a first binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and a VL domain comprising an amino acid sequence of SEQ ID NO: 105, wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations; and

(b) an anti-CD3 arm comprising a second binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and a VL domain comprising an amino acid sequence of SEQ ID NO: 134, wherein the anti-CD3 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations (EU numbering).

88. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises an anti-FcRH5 arm comprising a first binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23; and

an anti-CD3 arm comprising a second binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; and

wherein the anti-FcRH5 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations; and

wherein the anti-CD3 arm comprises a light chain comprising Q38K, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39E, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

89. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises:

(a) an anti-FcRH5 arm comprising a first binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and a VL domain comprising an amino acid sequence of SEQ ID NO: 105, wherein the anti-FcRH5 arm comprises a light chain comprising Q38E and V133K substitution mutations and a heavy chain comprising Q39K, S183E, and N297G substitution mutations; and

(b) an anti-CD3 arm comprising a second binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and a VL domain comprising an amino acid sequence of SEQ ID NO: 134, wherein the anti-CD3 arm comprises a light chain comprising Q38K, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39E, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

90. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises an anti-FcRH5 arm comprising a first binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 1;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 8;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 9;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 12;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 16; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 23; and

an anti-CD3 arm comprising a second binding domain comprising the following six HVRs:

- (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO: 115;
- (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO: 116;
- (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO: 121;
- (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO: 118;
- (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO: 119; and
- (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO: 123; and

wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations; and wherein the anti-CD3 arm comprises a light chain comprising Q38E, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39K, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

91. An anti-FcRH5 antibody that binds to FcRH5 and CD3, wherein the anti-FcRH5 antibody comprises:

(a) an anti-FcRH5 arm comprising a first binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 104 and a VL domain comprising an amino acid sequence of SEQ ID NO: 105, wherein the anti-FcRH5 arm comprises a light chain comprising Q38K and V133E substitution mutations and a heavy chain comprising Q39E, S183K, and N297G substitution mutations; and

(b) an anti-CD3 arm comprising a second binding domain comprising a VH domain comprising an amino acid sequence of SEQ ID NO: 133 and a VL domain comprising an amino acid sequence of SEQ ID NO: 134, wherein the anti-CD3 arm comprises a light chain comprising Q38E, F116A, L135V, S174A, S176F, and T178V substitution mutations and a heavy chain comprising Q39K, A141I, F170S, S181M, S183A, V185A, and N297G substitution mutations (EU numbering).

92. The anti-FcRH5 antibody of any one of claims 1(i), 2, 3, 24-46, and 60-91, wherein the anti-FcRH5 antibody has a clearance following intravenous injection of between about 10 ml/kg/day to about 35 ml/kg/day; wherein optionally the anti-FcRH5 antibody has a clearance following intravenous injection of about 10 ml/kg/day to about 20 ml/kg/day in a mouse; and wherein optionally the anti-FcRH5 antibody has a clearance following intravenous injection of about 12 ml/kg/day to about 16 ml/kg/day in a mouse.

93. The anti-FcRH5 antibody of claim 92, wherein the anti-FcRH5 antibody has a clearance following intravenous injection of about 20 ml/kg/day to about 40 ml/kg/day in a cyno; wherein optionally the anti-FcRH5 antibody has a clearance following intravenous injection of about 25 ml/kg/day to about 35 ml/kg/day in a cyno; and wherein optionally the anti-FcRH5 antibody has a clearance following intravenous injection of about 30 ml/kg/day to about 35 ml/kg/day in a cyno.

94. One or more isolated nucleic acids encoding the anti-FcRH5 antibody of any one of claims 1-93, or an antigen-binding fragment thereof.

95. One or more vectors comprising the one or more isolated nucleic acids of claim 94.

96. One or more host cells comprising the one or more vectors of claim 95.

97. The one or more host cells of claim 96, wherein the one or more host cells is are one or more mammalian host cells, wherein optionally the one or more mammalian host cells are one or more

Chinese hamster ovary (CHO) host cells; or one or more prokaryotic host cells, wherein optionally the one or more prokaryotic host cells are one or more *E. coli* host cells.

98. A method of producing the anti-FcRH5 antibody of any one of claims 1-93, the method comprising culturing the one or more host cells of claim 96 in a culture medium.

99. The method of claim 98, wherein the method further comprises recovering the anti-FcRH5 antibody from the one or more host cells or the culture medium.

100. An immunoconjugate comprising the anti-FcRH5 antibody of any one of claims 1-93 and a cytotoxic agent.

101. A composition comprising the anti-FcRH5 antibody of any one of claims 1-93.

102. The composition of claim 101, further comprising a pharmaceutically acceptable excipient or diluent; wherein optionally the pharmaceutically acceptable excipient is a buffer, carrier, stabilizer, or preservative; and wherein optionally the composition is a pharmaceutical composition.

103. The composition of claim 101 or 102, wherein the composition further comprises a PD-1 axis binding antagonist or an additional therapeutic agent.

104. The anti-FcRH5 antibody of any one of claims 1-93 for use as a medicament.

105. Use of the anti-FcRH5 antibody of any one of claims 1-93 or the composition of any one of claims 101-103 in the manufacture of a medicament for treating or delaying progression of an FcRH5-positive cancer in a subject.

106. Use of the anti-FcRH5 antibody of any one of claims 1-93 or the composition of any one of claims 101-103 in the manufacture of a medicament for enhancing immune function in a subject having an FcRH5-positive cancer.

107. The use of claim 105 or 106, wherein the FcRH5-positive cancer is a B cell cancer; wherein optionally the B cell cancer is selected from the group consisting of multiple myeloma (MM), chronic lymphoid leukemia (CLL), mantle cell lymphoma (MCL), diffuse large B-cell lymphoma (DLBCL), and follicular lymphoma (FL); and wherein optionally the B cell cancer is MM.

108. The use of any one of claims 105-107, wherein the anti-FcRH5 antibody binds to (a) an FcRH5 molecule located on a target cell and (b) a CD3 molecule located on an immune effector cell; wherein

optionally the anti-FcRH5 antibody activates the immune effector cell following binding to the FcRH5 molecule and the CD3 molecule; wherein optionally the activated immune effector cell is capable of exerting a cytotoxic effect and/or an apoptotic effect on the target cell.

109. The use of claim 108, wherein the target cell is a plasma cell; wherein optionally the plasma cell is a short-lived plasma cell, or a long-lived plasma cell.

110. The use of claim 109, wherein the plasma cell is a myeloma cell.

111. The use of any one of claims 105-110, wherein the anti-FcRH5 antibody is to be administered to the subject at a dosage of about 0.01 mg/kg/wk to about 50 mg/kg/wk; wherein optionally the anti-FcRH5 antibody is to be administered to the subject at a dosage of about 0.1 mg/kg/wk to about 10 mg/kg/wk; and wherein optionally the anti-FcRH5 antibody is to be administered to the subject at a dosage of about 1 mg/kg/wk.

112. The use of any one of claims 105-111, wherein the medicament is to be administered with a PD-1 axis binding antagonist and/or an additional therapeutic agent; wherein optionally the PD-1 axis binding antagonist or additional therapeutic agent is to be administered prior to or subsequent to the administration of the anti-FcRH5 antibody; and wherein optionally the PD-1 axis binding antagonist or additional therapeutic agent is to be administered concurrently with the anti-FcRH5 antibody.

113. The use of claim 112, wherein the PD-1 axis binding antagonist is selected from the group consisting of a PD-L1 binding antagonist, a PD-1 binding antagonist, and a PD-L2 binding antagonist.

114. The use of claim 113, wherein the PD-1 axis binding antagonist is a PD-L1 binding antagonist; wherein optionally the PD-L1 binding antagonist is selected from the group consisting of MPDL3280A (atezolizumab), YW243.55.S70, MDX-1105, MEDI4736 (durvalumab), and MSB0010718C (avelumab); and wherein optionally the PD-L1 binding antagonist is MPDL3280A (atezolizumab).

115. The use of claim 113, wherein the PD-1 axis binding antagonist is (i) a PD-1 binding antagonist, wherein optionally the PD-1 binding antagonist is selected from the group consisting of MDX 1106 (nivolumab), MK-3475 (pembrolizumab), CT-011 (pidilizumab), MEDI-0680 (AMP-514), PDR001, REGN2810, and BGB-108; or (ii) a PD-L2 binding antagonist, wherein optionally the PD-L2 binding antagonist is an antibody or an immunoadhesin.

116. The use of any one of claims 105-115, wherein the medicament is to be administered with a steroid, an immunomodulator (IMiD), a proteasome inhibitor (PI), or a combination thereof; wherein

optionally (i) the steroid is a glucocorticoid, wherein optionally the glucocorticoid is dexamethasone; (ii) the IMiD is lenalidomide; or (iii) the PI is bortezomib.

117. The use of any one of claims 105-116, wherein the anti-FcRH5 antibody, PD-1 axis binding antagonist, steroid, IMiD, PI, or combination thereof is to be administered intravenously, subcutaneously, intramuscularly, topically, orally, transdermally, intraperitoneally, intraorbitally, by implantation, by inhalation, intrathecally, intraventricularly, or intranasally.

118. The use of claim 117, wherein the anti-FcRH5 antibody, PD-1 axis binding antagonist, steroid, IMiD, PI, or combination thereof is to be administered intravenously or subcutaneously.

119. The use of any one of claims 105-118, wherein the subject is a human.

120. A method for detecting FcRH5 in a biological sample from a subject, wherein the method comprises:

(a) contacting the biological sample with the anti-FcRH5 antibody of any one of claims 1-93 under conditions permissive for binding of the anti-FcRH5 antibody to a naturally occurring FcRH5 in the biological sample, and

(b) detecting whether a complex is formed between the anti-FcRH5 antibody and a naturally occurring FcRH5 in the biological sample.

121. The method of claim 120, wherein the biological sample is a blood sample.

122. The method of claim 120 or 121, wherein the subject is a human.

123. A kit comprising the antibody of any one of claims 1-93 and a package insert comprising instructions for using the antibody for treating or delaying progression of an FcRH5-positive cancer in a subject.

124. A kit comprising the antibody of any one of claims 1-93 and a package insert comprising instructions for using the antibody for enhancing immune function in a subject having an FcRH5-positive cancer.

125. The kit of claim 123 or 124, wherein the subject is a human.