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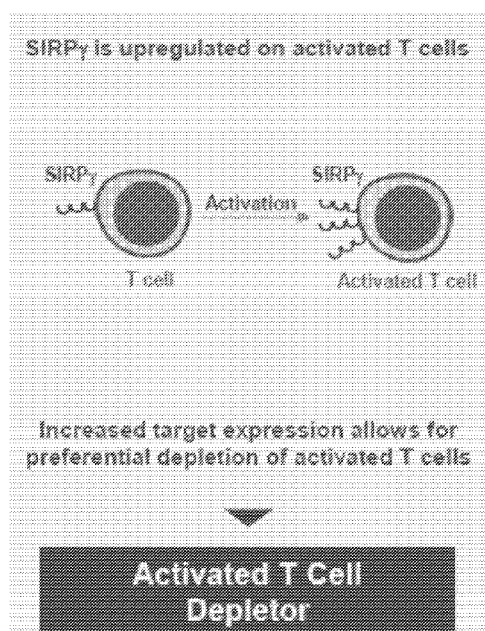
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(54) Title: SIRP GAMMA ANTIBODIES AND USES THEREOF

FIG. 4D



(57) Abstract: Provided herein are antibodies that bind signal regulatory protein SIRPg and methods of making and using such antibodies. In some embodiments, the antibodies comprise an Fc, and are useful for selective depletion of certain target SIRPy expressing cells. In some embodiments, the antibodies provided herein are useful for treating a disease or condition associated with the dysregulation of cells (e.g. overactivation or aberrant proliferation of T-cells).



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SIRP GAMMA ANTIBODIES AND USES THEREOF

BACKGROUND

[0001] This application claims priority to U.S. Provisional Patent Application No. 63/277,966, filed on November 10, 2021. The contents of this application are incorporated by reference herein in its entirety.

INCORPORATION BY REFERENCE OF SEQUENCE LISTING

[0002] The contents of the electronic sequence listing (ELTH_003_01WO_SeqList_ST26.xml; Size: 459,345 bytes; and Date of Creation: November 8, 2022) are herein incorporated by reference in its entirety.

BACKGROUND

[0003] Signal regulatory proteins (SIRPs) are a family of cell-surface immune receptors with Ig-like extracellular domains and include three members, SIRP α , SIRP β 1, and SIRP γ . SIRP α and SIRP β 1 are found on myeloid cells including monocytes, macrophages, dendritic cells, and on granulocytes such as neutrophils, eosinophils, and basophils. Unlike SIRP α and SIRP β 1, SIRP γ (also called CD172-antigen-like family member B, CD172 γ , SIRP β 2, and SIRP-beta-2) is not expressed by myeloid cells but is instead primarily expressed by T-cells and has also been found on activated NK-cells and a subset of B-cells. Like SIRP α , SIRP γ has been found to bind to CD47, a ubiquitously expressed cell surface protein, albeit with a lower affinity when compared to SIRP α . Unlike SIRP α , SIRP γ does not have a known signaling mechanism. Rather, SIRP γ has been shown to mediate cell-cell adhesion where it has been posited to promote T-cell-antigen presenting cell interactions for immune synapse stabilization and immune activation (Blood (2005) 105 (6): 2421–2427).

[0004] There is a need for agents that bind to specific populations of cells, while sparing other cells, useful for the targeted treatment of a variety of diseases and conditions. Such agents would provide a safe and effective approach to treat oncology, autoimmune and inflammatory disorders driven by the pathological activity of certain populations of cells. Provided herein are

such agents that target specific populations of SIRP γ -expressing cells, useful for the targeted treatment of a variety of diseases and conditions.

SUMMARY

[0005] Provided herein are antibodies specific for SIRP γ , useful for the targeted depletion of certain cell populations. In some embodiments, SIRP γ may be upregulated upon certain cell states (e.g. stimulation or exhaustion), and the use of the antibodies of the disclosure induces a preferential depletion of such cells in a particular state. In some embodiments, different SIRP γ isoforms may be expressed on different subsets of cells, and the use of the antibodies of the disclosure induces a preferential depletion of such different subsets. Also provided herein are methods of making, and methods of use of the SIRP γ antibodies.

[0006] Exemplary antibody amino acid sequences are provided in Tables 1 and 2.

[0007] More specifically, in one aspect, provided herein is an Fc-containing antibody that is specific for SIRP γ , wherein the antibody has low or no affinity for binding SIRP α and SIRP β 1, and wherein binding of the antibody to a SIRP γ -expressing cell induces effector-mediated depletion of the SIRP γ -expressing cell.

[0008] In another aspect, provided herein is a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of an activated (stimulated) T-cell, as compared to an unstimulated T-cell. In related aspects, provided herein is: (a) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺ T-cell; (b) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD4⁺ T-cell; (c) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺/CD69⁺ T-cell; (d) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺/CD25⁺ T-cell; (e) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺ T-cell, when compared to a SIRP γ -expressing

CD4⁺ T-cell; (f) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell; (g) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell; (h) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell; or (i) a SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to and depletion of a PD1⁺ T-cell, when compared to a SIRP γ -expressing PD1⁻ T-cell.

[0009] In another aspect, provided herein is a method of inducing the preferential depletion of a population of SIRP γ -expressing cells, the method comprising contacting the population with any of the SIRP γ antibodies of the disclosure.

[0010] In another aspect provided herein is a method of treating a disease or condition in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of any of the SIRP γ antibodies of the disclosure. In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of an autoimmune, inflammatory, or oncological disease or condition.

[0011] Also provided herein are pharmaceutical compositions comprising any of the SIRP γ antibodies of the disclosure, and optionally a pharmaceutically acceptable carrier. Also provided herein are nucleic acids encoding for the SIRP γ antibodies of the disclosure, and methods of making the same. Exemplary nucleic acids are provided for in Table 3.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 shows the binding of Antibody 1 and 2 to human and cynomolgus monkey (cyno) SIRP γ , SIRP α , and SIRP β 1 by enzyme-linked immunosorbent assay (ELISA).

[0013] FIG. 2A shows binding curves of selected antibodies to human and cynomolgus monkey SIRP γ by ELISA.

[0014] FIG. 2B shows binding curves of selected antibodies to human SIRP α V1, SIRP α V2, and SIRP β 1 by ELISA.

[0015] FIGS. 2C-2G show binding curves of selected antibodies to human and cynomolgus monkey SIRP γ , human SIRP α V1, and human SIRP β 1 by ELISA.

[0016] FIG. 3A shows the binding curves of selected antibodies to human CD3⁺ T-cells, CD20⁺ B-cells, and CD56⁺ NK-cells in human whole blood by flow cytometry.

[0017] FIGS. 3B and 3C show the binding curves of selected antibodies to human CD14⁺ monocytes and granulocytes in human whole blood by flow cytometry.

[0018] FIG. 3D shows the binding curves of selected antibodies to human CD4⁺ T-cells, CD8⁺ T-cells, CD20⁺ B-cells, and CD56⁺ NK-cells in human whole blood by flow cytometry.

[0019] FIGS. 4A-4C show that T-cell activation leads to differential regulation of cell surface SIRP γ expression, and that SIRP γ -specific antibodies are capable of increased binding to such activated T-cells. Ex vivo activation of healthy donor T-cells, using anti-CD3 and anti-CD28 antibodies, resulted in the upregulation of surface SIRP γ expression, compared to their unstimulated counterparts.

[0020] FIG. 4D is a model - upon activation of T-cells, SIRP γ expression is increased, and such increased target expression allows for preferential depletion of activated T-cells.

[0021] FIGS. 5A-5F show the binding curves of selected SIRP γ antibodies to human SIRP γ -expressing CHO cells and cynomolgus monkey SIRP γ -expressing CHO cells by flow cytometry.

[0022] FIGS. 5G-5L show the binding curves of selected SIRP γ antibodies to human and cynomolgus monkey SIRP α -expressing CHO cells, and human and cynomolgus monkey SIRP β 1-expressing CHO cells by flow cytometry.

[0023] FIGS. 6A-6C show the effect of selected antibodies on ADCC of human CD3⁺ resting (left) and stimulated (right) T-cells in vitro.

[0024] FIG. 7 shows the effect of selected antibodies on ADCP of human CD3⁺ resting (left panel) and stimulated (right panel) T-cells in vitro.

[0025] FIGS. 8A-8B show the results of an ELISA experiment assessing the ability of selected antibodies to disrupt CD47 binding to human SIRP γ .

[0026] FIG. 9 shows the results of a mixed lymphocyte reaction (MLR) experiment, assessing the effect of selected antibodies on T-cell proliferation.

[0027] FIG. 10 shows the effect of selected antibodies on human CD3⁺ T-cell depletion in vivo.

DETAILED DESCRIPTION

[0028] Provided herein are antibodies that bind to SIRP γ . Also provided are methods of making and using such antibodies. Given the restricted and unique patterns of SIRP γ expression, these antibodies may be useful for targeting particular cell types, and treating diseases or conditions involving cells, or cell states expressing SIRP γ , e.g. activated cells. For example, in some embodiments, the antibodies may be used for treating diseases or conditions involving dysfunction, dysregulation, overactivation and/or hyperproliferation of SIRP γ -expressing cells as a part of their pathology.

[0029] Where elements are presented in a list format (e.g., in a Markush group), it should be understood that each possible subgroup of the elements is also disclosed, and that any one or more elements can be removed from the list or group.

[0030] It should be understood that, unless clearly indicated, in any method described or disclosed herein that includes more than one act, the order of the acts is not necessarily limited to the order in which the acts of the method are recited, but the disclosure encompasses exemplary embodiments in which the order of the acts is so limited.

[0031] The terms used throughout the specification are defined as follows unless otherwise limited in specific instances. As used in the specification and the claims, the singular forms “a,” “an,” and “the” include plural referents unless the context clearly dictates otherwise. All technical and scientific terms, acronyms, and abbreviates used in the specification and claims have the same meaning as commonly understood by one of ordinary skill in the art to which the disclosure pertains, unless defined or stated otherwise. All numerical ranges are inclusive of the

values defining the range as well as all integer values in between, unless indicated or defined otherwise.

[0032] The term “antibody” as used herein throughout is used in the broadest sense and includes a monoclonal antibody, polyclonal antibody, human antibody, humanized antibody, non-human antibody, chimeric antibody, a monovalent antibody, and an antibody fragment. The term may refer to an intact tetrameric antibody containing two light chains and two heavy chains, each with a variable region, and a constant region (“full-length”). Alternatively, it may refer to antibody fragments.

[0033] Antibody fragments of the disclosure retain SIRP γ antigen binding specificity. Antibody fragments include antigen-binding fragments (Fab), variable fragments (Fv) containing VH and VL sequences, single chain variable fragments (scFv) containing VH and VL sequences linked together in one chain, single chain antibody fragments (scAb) or other antibody variable region fragments, such as Fab', F(ab')₂, dsFv diabody, and Fd polypeptide fragments.

[0034] The term “depletion” as used herein throughout refers to cell death as a Fc-mediated effector function. Without being bound to theory or mechanism, the Fc-containing SIRP γ antibodies of the disclosure are capable of depleting SIRP γ -expressing target cells, and involve effector functions for their mechanism of action. Without being bound to theory or mechanism, it is thought that Fc-containing antibodies of the disclosure bind to SIRP γ -expressing cells via their complementarity determining regions (CDR), the Fc-regions of the antibodies interact with Fc-receptors on the surfaces of effector immune cells or circulating complement proteins, thus resulting in the depletion (cell death) of the SIRP γ -expressing target cells. The depletion can be effectuated via immune cell effector processes like antibody-dependent cell-mediated cytotoxicity (ADCC) or antibody-dependent cellular phagocytosis (ADCP); additionally or alternatively, the Fc-region can bind to a complement component and cause complement-dependent cytotoxicity (CDC). The Fc-mediated cell death (depletion) describe herein is independent of any CDR-mediated signal transduction that leads to cell death. However, it is acknowledged that the depletion that occurs with the use of any of the Fc-containing SIRP γ antibodies of the disclosure may also include a CDR-mediated cell death component, but it is not required.

[0035] The terms “individual,” “subject,” and “patient” are used interchangeably herein and refer to any subject for whom treatment or therapy is desired. The subject may be a mammalian subject. Mammalian subjects include, e. g., humans, non-human primates, rodents, (e.g., rats, mice), lagomorphs (e.g., rabbits), ungulates (e.g., cows, sheep, pigs, horses, goats, and the like), etc. In some embodiments, the subject is a human. In some embodiments, the subject is a non-human primate, for example a cynomolgus monkey. In some embodiments, the subject is a companion animal (e.g. cats, dogs).

[0036] All publications, patents, and patent applications mentioned in this specification are herein incorporated by reference to the same extent as if each individual publication, patent, or patent application was specifically and individually indicated to be incorporated by reference.

I. Antibodies

A. SIRP γ Antibodies

[0037] Provided herein are antibodies that bind to SIRP γ , and exhibit little or no binding to SIRP α and SIRP β 1.

[0038] As used herein, “SIRP γ ” includes all isoforms, from any species. In the human, there are multiple SIRP γ transcripts, including a full length, two alternatively spliced forms that lack significant portions of their extracellular domains, and one alternatively spliced form that lacks the signal peptide sequence.

[0039] The amino acid sequence of hSIRP γ isoform 1 (full length) is provided as SEQ ID NO: 1 (referencing UniProtKB ID Q9P1W8 Isoform 1).

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1  MPVPASWPHP  PGPFLLLTLL  LGLTEVAGEE  ELQMIQPEKL  LLVTVGKTAT  LHCTVTSLLP
61  VGPVLWFRGV  GPGRELIYNQ  KEGHFPRVTT  VSDLTKRNNM  DFSIRISSIT  PADVGTYTCV
121 KFRKGSPENV  EFKSGPGTEM  ALGAKPSAPV  VLGPAARTTP  EHTVSFTCES  HGFSPRDITL
181 KWFKNGNELS  DFQTNVDPTG  QSVAYSIRST  ARVVLDPWDV  RSQVICEVAH  VTLQGDPLRG
241 TANLSEAIRV  PPTLEVTQQP  MRVGNQVNV  CQVRKFYPQS  LQLTWSNGN  VCQRETASTL
301 TENKDGTYNW  TSWFLVNISD  QRDDVVLTCQ  VKHDGQLAVS  KRLALEVTVH  QKDQSSDAP
361 GPASSLTALL  LIAVLLGPIY  VPWKQKT (SEQ ID NO: 1)

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[0040] The amino acid sequence of a splice variant hSIRP γ (isoform 2) is provided as SEQ ID NO: 37. (referencing UniProtKB ID Q9P1W8 Isoform 2).

MIQPEKLLLVTVGKTATLHCTVTSLLPVGPVLWFRGVGPGRELIYNQKEGHFPRVTTVSD
 LTKRNNMDFSIRISSITPADVGTYCYVKFRKGSPENVEFKSGPGTEMALGAKPSAPVVLG
 PAARTTPEHTVSFTCESHGFSPRDLTKWFKNGNELSDFQTNVDPTGQSVAYSIRSTARV
 VLDPWDVRSQVICEVAHVTLQGDPLRG TANLSEAIRVPPTLEVTQQPMRVGNQVNVTCQV
 RKFYPPQSLQLTWSSENGNVCQRETASTLTENKDGTYNWT SWFLVNI SDQRDDVVLTCQVKH
 DGQLAVSKRLALEVT VHQKQSSDATPGPASSLTALLLIAVLLGPIYVPWKQKT (SEQ ID NO: 37)

[0041] The amino acid sequence of a splice variant hSIRP γ (isoform 3) is provided as SEQ ID NO: 2. (referencing UniProtKB ID Q9P1W8 Isoform 3).

MPVPASWPHPPGPFLLLLTLLGLTEVAGEEELQMIQPEKLLLVTVGKTATLHCTVTSLLPVGPVLWFRGV
 GPGRELIYNQKEGHFPRVTTVSDLTNRNNMDFSIRISSITPADVGTYCYVKFRKGSPENVEFKSGPGTEM
 ALGGPASSLTALLLIAVLLGPIYVPWKQKT (SEQ ID NO: 2)

[0042] The amino acid sequence of another splice variant hSIRP γ (isoform 4) is provided as SEQ ID NO: 3 (referencing UniProtKB ID Q9P1W8 Isoform 4).

MPVPASWPHPPGPFLLLLTLLGLTEVAGEEELQMIQPEKLLLVTVGKTATLHCTVTSLLP
 VGPVLWFRGVGPGRELIYNQKEGHFPRVTTVSDLTNRNNMDFSIRISSITPADVGTYCYV
 KFRKGSPENVEFKSGPGTEMALGAKPSAPVVLGPAARTTPEHTVSFTCESHGFSPRDLTK
 WFKNGNELSDFQTNVDPTGQSVAYSIRSTARVVLDPWDVRSQVICEVAHVTLQGDPLRG
 TANLSEAIRGPASSLTALLLIAVLLGPIYVPWKQKT (SEQ ID NO: 3)

[0043] The amino acid sequence of cynomolgus monkey SIRP γ is provided as SEQ ID NO: 4. (referencing GenBank: EHH65481.1).

MPVPASWPHPPGPFLLLLTLLGLTEVAGEEELQMIQPEKLLLVAVGESATLNCTVTSLLPVGPVLWFRGV
 GPGRELIYNQKEGHFPRVTTVSDLTNRNNMDFSIRISSITPADAGTYCYVKFRKGSPENVEFKSGPGTEM
 ALRAKPSAPVVS GPAARATPEHTVSFTCKSHGFSPRDLTKWFKNGNELSDFQTNVDPAQSVSYRST
 ARVVLAPWDVRSQVTCEVAHVTLQGDPLRG TANLSEAIRVPPTLEVTQQPMRAGNQVNITYQVRNFYPQN
 LQLTWLENGNVCRTETASTLTENKDGTYNWT SWLLVNTSDQRDDVVLTCQVKH DGQLAVNKS LVLEVSAH
 QKDQSSDATHGPASSLTVLLLIAVLLGPIYVPWKQKS (SEQ ID NO: 4)

[0044] Accordingly, the SIRP γ antibodies of the disclosure may bind to one or more isoforms of a SIRP γ of a single species. In some embodiments, the SIRP γ antibodies also bind to one or more isoforms of a SIRP γ of more than one species. In some embodiments, the SIRP γ antibodies bind to one or more isoforms of human SIRP γ . In some embodiments, the SIRP γ antibodies also bind to one or more isoforms of a non-human primate SIRP γ , e.g. a cynomolgus monkey SIRP γ .

[0045] In some embodiments, the SIRP γ antibodies bind to a plurality of SIRP γ variants or isoforms found in a particular species, e.g. the SIRP γ antibodies bind to more than one of SIRP γ human isoforms 1-3. In some embodiments, the SIRP γ antibodies bind the extracellular domain of SIRP γ (e.g. amino acids 1-360 of SEQ ID NO: 1).

[0046] In some embodiments, a SIRP γ antibody of the disclosure binds to a plurality of SIRP γ isoforms found in a particular species, e.g. the SIRP γ antibody binds to more than one SIRP γ human isoform (e.g. the antibody binds to the full length and one or more splice variants). In other embodiments, the SIRP γ antibody binds to some but not all SIRP γ isoforms found in a particular species (e.g. the SIRP γ antibody binds to one splice variant, but not all).

[0047] The skilled artisan will recognize that antibodies that exhibit little or no binding to a target antigen can be described as having a low affinity, and a high equilibrium dissociation constant (KD) for the target antigen, for example a KD of about 10 μ M or greater, about 100 μ M or greater, about 1 mM or greater, or about 10 mM or greater. The skilled artisan will also recognize that antibodies that exhibit little or no binding to a target antigen can be described as having a low affinity, and a high equilibrium dissociation constant (KD) for the target antigen, for example a KD of about 10 μ M or greater, about 100 μ M or greater, about 1 mM or greater, or about 10 mM or greater. For example, a SIRP γ antibody that binds to SIRP γ may bind to SIRP β 1 and/or SIRP α with low affinity. A SIRP γ antibody of the disclosure with low affinity for SIRP β 1 and/or SIRP α may bind to SIRP β 1 and/or SIRP α with a KD of about 10 μ M or greater, about 100 μ M or greater, about 1 mM or greater, or about 10 mM or greater but retain higher binding affinity for SIRP γ .

[0048] In some embodiments, provided herein are SIRP γ antibodies comprising a binding affinity (KD) to SIRP γ of about 0.0001 nM, about 0.0005 nM, about 0.001 nM, about 0.005 nM, about 0.1 nM, about 0.05 nM, about 0.1 nM, about 0.5 nM, about 1 nM, about 5 nM, about 10 nM, about 50 nM, about 100 nM, about 500 nM, about 1 μ M, about 2 μ M or about 3 μ M.

[0049] In some embodiments, provided herein are SIRP γ antibodies comprising a binding affinity (KD) to SIRP γ of between about 0.0001 nM and 5 μ M, between about 0.0005 nM and 5 μ M, between about 0.05 nM and 5 μ M, between about 0.5 nM and 5 μ M, between about 1 nM and 5 μ M, between about 5 nM and 5 μ M, 0.0001 nM and 2 μ M, between about 0.0005 nM and 2 μ M, between about 0.05 nM and 2 μ M, between about 0.5 nM and 2 μ M, between about 1 nM and 2 μ M, between about 5 nM and 2 μ M, 0.0001 nM and 1 μ M, between about 0.0005 nM and 1 μ M, between about 0.05 nM and 1 μ M, between about 0.5 nM and 1 μ M, between about 1 nM and 1 μ M, between about 5 nM and 1 μ M, between about 0.0001 nM and 500 nM, between about 0.0005 nM and 500 nM, between about 0.05 nM and 500 nM, between about 0.5 nM and 500

nM, between about 1 nM and 500 nM, between about 5 nM and 500 nM, between about 0.0001 nM and 50 nM, between about 0.0005 nM and 50 nM, between about 0.05 nM and 50 nM, between about 0.5 nM and 50 nM, between about 1 nM and 50 nM, or between about 5 nM and 50 nM.

[0050] In some embodiments, a SIRP γ antibody of the disclosure does not disrupt CD47 binding to SIRP γ on a cell or other surface. Exemplary antibodies that do not disrupt CD47 binding to SIRP γ include an antibody comprising the following sequences, making reference to Table 1 below:

- a. the CDR-H1 amino acid sequence of SEQ ID NO: 210; the CDR-H2 amino acid sequence of SEQ ID NO: 246; the CDR-H3 amino acid sequence of SEQ ID NO: 278; the CDR-L1 amino acid sequence of SEQ ID NO: 101; the CDR-L2 amino acid sequence of SEQ ID NO: 139; and the CDR-L3 amino acid sequence of SEQ ID NO: 168.
- b. the CDR-H1 amino acid sequence of SEQ ID NO: 213; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 290; the CDR-L1 amino acid sequence of SEQ ID NO: 112; the CDR-L2 amino acid sequence of SEQ ID NO: 148; and the CDR-L3 amino acid sequence of SEQ ID NO: 179.
- c. the CDR-H1 amino acid sequence of SEQ ID NO: 234; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 308; the CDR-L1 amino acid sequence of SEQ ID NO: 127; the CDR-L2 amino acid sequence of SEQ ID NO: 155; and the CDR-L3 amino acid sequence of SEQ ID NO: 196.
- d. the CDR-H1 amino acid sequence of SEQ ID NO: 243; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 321; the CDR-L1 amino acid sequence of SEQ ID NO: 136; the CDR-L2 amino acid sequence of SEQ ID NO: 164; and the CDR-L3 amino acid sequence of SEQ ID NO: 207.

[0051] Exemplary antibodies of the disclosure that do not disrupt CD47 binding to SIRP γ include Antibodies 5, 6, 8, 59, 73, 80, 85, 92, and 96 (depicted in FIGS. 8A and 8B). The CDR and VH/VL sequences for these antibodies are provided in Tables 1 and 2.

[0052] In other embodiments, a SIRP γ antibody of the disclosure disrupts the binding of CD47 to SIRP γ on a cell or other surface. In other embodiments, a SIRP γ antibody of the disclosure enhances or promotes the binding of CD47 to SIRP γ on a cell or other surface. Exemplary antibodies that do not disrupt CD47 binding to SIRP γ include an antibody comprising the following sequences, making reference to Table 2: an antibody that comprises the CDR-H1 amino acid sequence of SEQ ID NO: 209; the CDR-H2 amino acid sequence of SEQ ID NO: 245; the CDR-H3 amino acid sequence of SEQ ID NO: 277; the CDR-L1 amino acid sequence of SEQ ID NO: 100; the CDR-L2 amino acid sequence of SEQ ID NO: 138; and the CDR-L3 amino acid sequence of SEQ ID NO: 167. Exemplary antibodies of the disclosure that enhance or promote CD47 binding to SIRP γ include Antibodies 3, 4, and 7. The CDR and VH/VL sequences for these antibodies are provided in Tables 1 and 2.

[0053] Also provided herein are Fc-containing SIRP γ antibodies. In some embodiments, Fc domain of (interchangeably referred to as a Fc sequence, Fc region, or simply Fc) of the SIRP γ antibody is a human Fc domain. In some embodiments, the Fc domain of a SIRP γ antibody is human IgG1, human IgG2, human IgG3, or human IgG4. In some embodiments, the Fc domain of a SIRP γ antibody is that of a mouse. In some embodiments, the Fc domain of a SIRP γ antibody is mouse IgG1 or mouse IgG2a. In some embodiments, the Fc domain of a SIRP γ antibody is that of a rat. In some embodiments, the Fc domain of a SIRP γ antibody is rat IgG1 or rat IgG2b. In some embodiments, the Fc domain of a SIRP γ antibody is that of a non-human primate, e.g. it is a cynomolgus monkey Fc domain.

[0054] In some embodiments, the SIRP γ antibodies provided herein are full-length antibodies (comprising an intact tetrameric antibody containing two light chains and two heavy chains, each with a variable region, and a constant region). In some embodiments, the constant region of the full-length SIRP γ antibodies comprises a human Fc domain. In some embodiments, the Fc domain of a full-length SIRP γ antibody is from a human IgG1, human IgG2, human IgG3, or human IgG4. In some embodiments, the Fc domain of a full-length SIRP γ antibody is that of a mouse immunoglobulin. In some embodiments, the Fc domain of a full-length SIRP γ antibody

is that of a mouse IgG1 or mouse IgG2a. In some embodiments, the Fc domain of a full-length SIRP γ antibody is that of a rat. In some embodiments, the Fc domain of a full-length SIRP γ antibody is from a rat IgG1 or rat IgG2b. In embodiments, the Fc domain of a full-length SIRP γ antibody is that of a non-human primate, e.g. it is a cynomolgus monkey Fc domain.

[0055] In some embodiments, the SIRP γ antibody contains an Fc domain (referred to as an “Fc-containing antibody”), wherein binding of the Fc-containing antibody to a SIRP γ -expressing cell can mediate effector cell-mediated depletion of the SIRP γ -expressing cell. In some embodiments, the Fc domain of a SIRP γ antibody is a human IgG1 Fc. Exemplary, but non-limiting, sequences of heavy chain constant regions (CH) of human IgG1 encompassing Fc domains of interest are provided as SEQ ID NO: 5-27, and SEQ ID NO: 36. SEQ ID NO: 5 provides the canonical human IgG1 heavy chain constant region (CH) sequence.

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1   ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61  GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 5)

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1   ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61  GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 6)

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1   ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61  GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLAG
121 PDVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 7)

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1   ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61  GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLAG
121 PDVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 8)

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1   ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61  GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PDVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 9)

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1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 10)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PDVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 11)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 12)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV LHEALHNHYT QKSLSLSPGK (SEQ ID NO: 13)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKVEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHSHYT QKSLSLSPGK (SEQ ID NO: 14)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV LHEALHNHYT QKSLSLSPGK (SEQ ID NO: 15)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHSHYT QKSLSLSPGK (SEQ ID NO: 16)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKRVEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 17)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKRVEP KSCDKTHTCP PCPAPELLGG

121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
 241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 18)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKRVEP KSCDKTHTCP PCPAPELLGG
 121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
 241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 19)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKRVEP KSCDKTHTCP PCPAPELLGG
 121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
 241 MTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 20)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
 121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSRDE
 241 MTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 21)

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKAEP KSCDKTHTCP PCPAPELLGG
 121 PSVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
 241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 22)

[0056] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 23, wherein X1 is V or A.

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKX₁EP KSCDKTHTCP PCPAPELLAG
 121 PDVFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPEEKTIS KAKGQPREPQ VYTLPPSRDE
 241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 23)

[0057] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 24, wherein X1 is V or A; X2 is G or A; X3 is S or D; and X4 is I or E.

1 ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
 61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKX₁EP KSCDKTHTCP PCPAELLX₂G
 121 PX₃VFLFPPKP KDTLMIS RTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN
 181 STYRVSVLT VLHQDWLNGK EYKCKVSNKA LPAPX₄EKTIS KAKGQPREPQ VYTLPPSRDE
 241 LTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
 301 QQGNVFSCSV MHEALHNHYT QKSLSLSPGK (SEQ ID NO: 24)

[0058] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 25, wherein X1 is V or A.

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1  ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKX1EP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNA KTKPREEQYN
181 STYRVVSVLT VLHQDWLNGKEYKCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRDE
241 LTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYTQKSLSLSPGK (SEQ ID NO: 25)

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[0059] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 26, wherein X1 is V or A; X2 is M or L; and X3 is N or S.

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1  ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKX1EP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNA KTKPREEQYN
181 STYRVVSVLT VLHQDWLNGKEYKCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRDE
241 LTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRW
301 QQGNVFSCSV X2HEALHX3HYTQKSLSLSPGK (SEQ ID NO: 26)

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[0060] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 27, wherein X1 is K or R; X2 is D or E; and X3 is L or M.

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1  ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS
61 GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKKX1VEP KSCDKTHTCP PCPAPELLGG
121 PSVFLFPPKP KDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNA KTKPREEQYN
181 STYRVVSVLT VLHQDWLNGKEYKCKVSNKALGAPIEKTISKAKGQPREPQVYTLPPSRX2E
241 X3TKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRW
301 QQGNVFSCSV MHEALHNHYTQKSLSLSPGK (SEQ ID NO: 27)

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[0061] In some embodiments, the constant region of human IgG1 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 36, and comprises L234A, L235A, P329G substitutions (referred to as LALA-PG substitutions).

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ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCTPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDP
EVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALGAPIEKTISKAKGQPREPQV
YTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSC
SVMHEALHNHYTQKSLSLSPGK (SEQ ID NO: 36)

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[0062] In some embodiments, the Fc domain of a Fc-containing SIRP γ antibody is a human IgG4 Fc. Exemplary, but non-limiting, sequences of heavy chain constant regions (CH) of

human IgG4 encompassing Fc domains of interest are provided as SEQ ID NO: 28-35. SEQ ID NO: 28 provides the canonical human IgG4 heavy chain constant region (CH) sequence.

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 28)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEFEGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 29)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEFEGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 30)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 31)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEALGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 32)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 33)

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPCPAPEFAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQ
FNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVYTL
PPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCSV
HEALHNHYTQKSLSLGLK (SEQ ID NO: 34)

[0063] In some embodiments, the constant region of human IgG4 heavy chain sequence encompassing a Fc domain of interest is SEQ ID NO: 35, wherein X1 is S or P; AND X2 is L or E.

ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLG
TKTYTCNVDHKPSNTKVDKRVESKYGPPCPX1CPAPEFX2GGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPE
VQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKGLPSSIEKTIKAKGQPREPQVY

TLPPSQEEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSRLTVDKSRWQEGNVFSCS
VMHEALHNHYTQKSLSLGLGK (SEQ ID NO: 35)

[0064] In some embodiments, the SIRP γ antibodies provided herein are chimeric and comprise a variable region from one species, and a constant region from another species, e.g. comprise a human variable region and a rat constant region. In some embodiments, the rat constant region comprises sequences from a rat IgG1 or rat IgG2b. In some embodiments, the antibodies comprise a human variable region and a mouse constant region. In some embodiments, the mouse constant region is mouse IgG1, or mouse IgG2a. In some embodiments, the antibodies comprise a human variable region and a human constant region. In exemplary embodiments, the human constant region comprises sequences from human IgG1, human IgG2, human IgG3, or human IgG4.

[0065] The EU numbering scheme is one of many available antibody numbering schemes based on the residue numbers assigned to a canonical antibody sequence. Accordingly, a skilled artisan would understand that reference to a particular residue using the EU numbering scheme may or may not be exactly the residue in one of the SIRP γ antibodies of the disclosure. For example, if a SIRP γ antibody of the disclosure comprises a V215A substitution in the Fc region of the heavy chain, wherein the position number of the amino acid residue is of the EU numbering scheme, the residue may not be the actual residue 215 in that particular SIRP γ antibody. It may be actual residue number 213, or 214, or 215, or 216 or others. Accordingly, a skilled artisan will understand how to correspond the recited residue using the EU numbering scheme, to the actual residue in a SIRP γ antibody of the disclosure. The EU numbering system for antibodies is known in the art and is described, for example, at imgt.org/IMGTSscientificChart/Numbering/Hu_IGHGnber.html.

[0066] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5), and heavy chain Fc substitutions are introduced to increase effector function (e.g. those that exhibit increased affinity to Fc γ R or promote complement protein binding).

[0067] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5), and heavy chain Fc substitutions are introduced to decrease effector function (e.g. silence).

[0068] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5), and heavy chain Fc substitutions are introduced to increase antibody half-life.

[0069] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NO: 28), and heavy chain Fc substitutions are introduced to increase effector function (e.g. those that exhibit increased affinity to Fc γ R or promote complement protein binding).

[0070] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NO: 28), and heavy chain Fc substitutions are introduced to decrease effector function (e.g. silence).

[0071] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NO: 28), and heavy chain Fc substitutions are introduced to increase antibody half-life.

[0072] In some embodiments, the Fc domain of a SIRP γ antibody is an IgG1 Fc domain (e.g. the Fc domain from any one of the IgG1 constant heavy chain sequences of SEQ ID NOS: 5-27, 36) or is an IgG4 human Fc domain (e.g. the Fc domain from any one of the IgG4 constant heavy chain sequences of SEQ ID NOS: 28-35).

[0073] In some embodiments, the Fc domain of a SIRP γ antibody is an IgG1 Fc domain (e.g. the Fc domain from any one of the IgG1 constant heavy chain sequences of SEQ ID NOS: 5-27, or 36) or is an IgG4 human Fc domain (e.g. the Fc domain from any one of the IgG4 constant heavy chain sequences of SEQ ID NOS: 28, 29 or 35), and comprises at least one amino acid substitution in the heavy chain at a position selected from the group consisting of: 214, 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 356, 358, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0074] In some embodiments, the Fc domain of a SIRP γ antibody is from heavy chain SEQ ID NOS: 5-27, or 36, optionally with one or more heavy chain Fc amino acid substitutions, for

example at least one amino acid substitution at a position selected from the group consisting of: 214, 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 356, 358, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme. Exemplary substitutions include one or more of K214R, V215A, G236A, S239D, I332E, D356E, L358M, M428L, N434S, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0075] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5-27, or 36), and heavy chain Fc substitutions are introduced to, among other effects, increase effector function (e.g. one or more of FcR binding on an immune effector cell, and binding to complement C1q), selected from the group consisting of V215A, G236A, S239D, I332E, G236A/S239D, G236A/I332E, S239D/I332E, V215A/G236A/S239D/I332E, G236A/S239D/I332E, V215A/ G236A/S239D/I332E, K326W/E333S, S267E/H268F/S324T, E345R, E430G, E345K, S440Y, K326W, E333S, S267E, H268F, S324T, and E345R/E430G/S440Y, F243L/R292P/Y300L/V305I/P396L, S239D/I332E, S298A/E333A/K334A, L234Y/L235Q/G236W/S239M/H268D/D270E/S298A, and D270E/K326D/A330M/K334E wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0076] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5-27, or 36), and heavy chain Fc substitutions are introduced to reduce (e.g. silence) effector function, including one or more of N297A, N297Q, N297G, L235E, L234A, L235A, K214R, P329G, D356E, and L358M, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0077] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG1 constant heavy chain (e.g. SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 36), and heavy chain Fc substitutions are introduced to reduce effector function (e.g. silence), including L234A, L235A, and P329G, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0078] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NOS: 28, 29 or 35), and heavy chain Fc substitutions are introduced to reduce effector function, including one or more of L235E, and F234A/L235A, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0079] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG2 constant heavy chain, and heavy chain Fc substitutions are introduced to reduce effector function, including H268Q/V309L/A330S/P331S and V234A/G237A/P238S/H268A/V309L/A330S/P331S, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0080] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NO: 28), and the antibody is prone to the dynamic process of Fab-arm exchange. Accordingly, in some embodiments the IgG4 heavy chain Fc domain comprises a S228P substitution, resulting in the reduction of Fab-arm exchange, wherein the position number of the amino acid residues are of the EU numbering scheme.

[0081] In some embodiments, the Fc domain of a SIRP γ antibody is from a human IgG4 constant heavy chain (e.g. SEQ ID NO: 28, 29 or 35), and one or more of the following heavy chain Fc substitution are introduced to reduce effector function: L235A, L235E, S228P, L235E/S228P, S228P/F234A, S228P/F234A/L235A, wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[0082] In other embodiments, the Fc domain of a SIRP γ antibody is altered to increase its serum half-life. Such alterations include heavy chain Fc substitutions of a human IgG1, IgG2, IgG3 or IgG4 such as M428L, N343S, T250Q/M428L, M252Y/S254T/T256E, M428L/N434S, S267E/L328F, N325S/L328F, and H433K/N434F, wherein the position number of the amino acid residues are of the EU numbering scheme.

[0083] In some embodiments the SIRP γ antibody comprises a light chain constant region, in addition to the SIRP γ antigen-binding light chain variable region, for example the exemplary CDR-containing light chain variable regions provided in Table 2. Exemplary light chain constant region amino acid sequences are provided in SEQ ID NOS: 38-42.

[0084] In some embodiments, the SIRP γ antibody contains a kappa light chain constant region. An exemplary kappa light chain constant region is provided as SEQ ID NO: 38.

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNFFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKA
DYEKHKVYACEVTHQGLSSPVTKSFNRGEC (SEQ ID NO: 38)

[0085] In some embodiments, the SIRP γ antibody contains a lambda light chain constant region. Exemplary lambda light chain constant regions are provided as SEQ ID NO: 39-41.

GQPKANPTVTTLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADGSPVKAGVETTKPSKQSNNKYAASSYLSLTPE
QWKSHRSYSCQVTHEGSTVEKTVAPTECS (SEQ ID NO: 39)

GQPKAAPSVTLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADSSPVKAGVETTTTPSKQSNNKYAASSYLSLTPE
QWKSHRSYSCQVTHEGSTVEKTVAPTECS (SEQ ID NO: 40)

GQPKAAPSVTLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADSSPVKAGVETTTTPSKQSNNKYAASSYLSLTPE
QWKSHKSYSCQVTHEGSTVEKTVAPTECS (SEQ ID NO: 41)

GQPKAAPSVTLFPPSSEELQANKATLVCLVSDFNPGAVTVAWKADGSPVKGVETTKPSKQSNNKYAASSYLSLTPE
QWKSHRSYSCRVTHEGSTVEKTVAPAEC (SEQ ID NO: 42)

[0086] In some embodiments the SIRP γ antibody comprises a light chain constant region and heavy chain constant region, in addition to the SIRP γ antigen-binding light and heavy chain variable regions, for example the exemplary CDR-containing light chain and heavy chain variable regions provided in Table 2. Exemplary light chain constant region amino acid sequences of the disclosure are provided in SEQ ID NOS: 38-42; and exemplary heavy chain constant region amino acid sequences of the disclosure are provided in SEQ ID NOS: 5-36.

[0087] In exemplary embodiments, the SIRP γ antibodies provided herein are monoclonal antibodies (mAbs). In exemplary embodiments, the SIRP γ antibodies provided herein are human antibodies. In exemplary embodiments, the SIRP γ antibodies provided herein are humanized antibodies. In exemplary embodiments, the SIRP γ antibodies provided herein are monoclonal human antibodies, or monoclonal humanized antibodies. In exemplary embodiments, the SIRP γ antibodies provided herein are chimeric antibodies. In exemplary embodiments, the SIRP γ antibodies provided herein are monoclonal chimeric antibodies. In some embodiments, the SIRP γ antibody is provided as an antibody fragment.

[0088] Also provided herein are SIRP γ antibody-drug conjugates, bispecific antibodies comprising at least one arm specific for SIRP γ , and multispecific antibodies that exhibit binding for SIRP γ .

i. Exemplary SIRP γ Antibodies – CDR Sequences

[0089] Provided herein are sequences for exemplary SIRP γ antibodies of the disclosure.

Included are complementarity determining region (CDR) sequences and the variable heavy and light domain sequences (VH, VL) that constitute the SIRP γ antigen binding domains of the disclosure.

[0090] As referred below, a light chain variable (VL) domain CDR1 region is referred to as CDR-L1; a VL CDR2 region is referred to as CDR-L2; a VL CDR3 region is referred to as CDR-L3; a heavy chain variable (VH) domain CDR1 region is referred to as CDR-H1; a VH CDR2 region is referred to as CDR-H2; and a VH CDR3 region is referred to as CDR-H3. Table 1 provides 47 exemplary CDR combinations of antibodies of the disclosure.

Table 1: Exemplary SIRP γ Antibody CDR Combinations

Combination No.	Antibody No.	CDR-L1	CDR-L2	CDR-L3	CDR-H1	CDR-H2	CDR-H3
1	Antibody 1,3, 4, 7, 110	QSVSSN (SEQ ID NO: 100)	GAS (SEQ ID NO: 138)	QQYNNWPLT (SEQ ID NO: 167)	GFTFSNYG (SEQ ID NO: 209)	IWYDGSNK (SEQ ID NO: 245)	AREEQWLDY (SEQ ID NO: 277)
2	Antibody 2,5,6,8, 111	QSISSW (SEQ ID NO: 101)	KAS (SEQ ID NO: 139)	QQYDSYTT (SEQ ID NO: 168)	GYTFTGYH (SEQ ID NO: 210)	INPNSGGT (SEQ ID NO: 246)	ARERVGYSRP SCLDDLNI (SEQ ID NO: 278)
3	Antibody 9, 54, 83, 98	RASQSLGSTYL A (SEQ ID NO: 102)	GASTRAT (SEQ ID NO: 140)	CQQYSSPPTF (SEQ ID NO: 169)	YFSDDYMH (SEQ ID NO: 211)	GWMSPNNGN TGYA (SEQ ID NO: 247)	CARQREEYGH YYYGMDVW (SEQ ID NO: 279)
4	Antibody 10	QASQDIHNYL N (SEQ ID NO: 103)	DASNLET (SEQ ID NO: 141)	CQQSYNTPPTF (SEQ ID NO: 170)	GTFSNYDIS (SEQ ID NO: 212)	GMIDPSGGST SYA (SEQ ID NO: 248)	CARPYSSGWY YFDYW (SEQ ID NO: 280)
5	Antibody 11	RASQTINNYLN (SEQ ID NO: 104)	DASNLET (SEQ ID NO: 141)	CQQANSFPLTF (SEQ ID NO: 171)	YTFTSYDIN (SEQ ID NO: 213)	GWMPNPSGN TGYA (SEQ ID NO: 249)	CAKGAVAGTY YYYGMDVW (SEQ ID NO: 281)
6	Antibody 12	RASQNIRNYLN (SEQ ID NO: 105)	AASSLQG (SEQ ID NO: 142)	CQQSYNGPYT F (SEQ ID NO: 172)	GTFGSYGIN (SEQ ID NO: 214)	GWISAYNGNT NYA (SEQ ID NO: 250)	CARDGIDYGG NSGYDYW (SEQ ID NO: 282)
7	Antibody 13, 55	RSSQSLHSNG YNYLD (SEQ ID NO: 106)	AASSLQS (SEQ ID NO: 143)	CMQGTHWPP TF (SEQ ID NO: 173)	FTFSNSDMN (SEQ ID NO: 215)	SYISSGNTIYY A (SEQ ID NO: 251)	CARSNWNYPL DYDDMDVW (SEQ ID NO: 283)

Combination No.	Antibody No.	CDR-L1	CDR-L2	CDR-L3	CDR-H1	CDR-H2	CDR-H3
8	Antibody 14, 56	RSSQSLHSNG YNYLD (SEQ ID NO: 106)	AASTLQS (SEQ ID NO: 144)	CMQGLQTLYS F (SEQ ID NO: 174)	YTFTSYMH (SEQ ID NO: 216)	GWVDPNNGD TGYA (SEQ ID NO: 252)	CARDNWGSLD VW (SEQ ID NO: 284)
9	Antibody 15	RASQGVGDRS A (SEQ ID NO: 107)	DASNLET (SEQ ID NO: 141)	CQQADTFPYT F (SEQ ID NO: 175)	YSFTSYGIS (SEQ ID NO: 217)	GWISPYNGNT NYA (SEQ ID NO: 253)	CAREAYGDYG DYFDYW (SEQ ID NO: 285)
10	Antibody 16, 57, 84, 99	RASQGISTYLA (SEQ ID NO: 108)	AASTLQS (SEQ ID NO: 144)	CQQSHSAPITF (SEQ ID NO: 176)	YTFTSYMH (SEQ ID NO: 216)	GWINPNSGNA GFA (SEQ ID NO: 254)	CARGPVVSYG PFDYW (SEQ ID NO: 286)
11	Antibody 17	RASQSISSYLN (SEQ ID NO: 109)	DASSLES (SEQ ID NO: 145)	CQQANSFPLTF (SEQ ID NO: 171)	YTFTRNYVH (SEQ ID NO: 218)	GRINPNSGGT NTA (SEQ ID NO: 255)	CARLGDVAVA ASFDYW (SEQ ID NO: 287)
12	Antibody 18	RASQGIGNDL A (SEQ ID NO: 110)	DAKDLHP (SEQ ID NO: 146)	CQQSYSPRTF (SEQ ID NO: 177)	YTFTGYMH (SEQ ID NO: 219)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARGSGYDAG VFDYW (SEQ ID NO: 288)
13	Antibody 19, 58	RASESISHWLA (SEQ ID NO: 111)	GASTLQS (SEQ ID NO: 147)	CQQSYTPPLTF (SEQ ID NO: 178)	YTFTAYMH (SEQ ID NO: 220)	GIINPSGGSTY A (SEQ ID NO: 256)	CARDSGWYAP GYYGMDVW (SEQ ID NO: 289)
14	Antibody 20, 59, 85, 100	KSSQSLLYSSN NKNYLA (SEQ ID NO: 112)	WASIRES (SEQ ID NO: 148)	CQQYLSPLTF (SEQ ID NO: 179)	YTFTSYDIN (SEQ ID NO: 213)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARESYAYCSS TSCYDAFDIW (SEQ ID NO: 290)
15	Antibody 21, 60, 86, 101	RASQDIRRALA (SEQ ID NO: 113)	AASSLQS (SEQ ID NO: 143)	CLQHNSYPPTF (SEQ ID NO: 180)	FTLGSYWMH (SEQ ID NO: 221)	SLISWDGGSTY YA (SEQ ID NO: 257)	CAKGPWVGYS GYDLNYYYYG MDVW (SEQ ID NO: 291)
16	Antibody 22, 61, 87	RSSQSLHSNG YNYLD (SEQ ID NO: 106)	LGSSRAS (SEQ ID NO: 149)	CMQALQTPTF (SEQ ID NO: 181)	YTFTSHDIN (SEQ ID NO: 222)	GISNPSGGSTY YA (SEQ ID NO: 258)	CASSRRYWNG AFDYW (SEQ ID NO: 292)
17	Antibody 23, 62	QASQGISSYLN (SEQ ID NO: 114)	AASSLQN (SEQ ID NO: 150)	CQQSYSTPITF (SEQ ID NO: 182)	GTFSNYDIN (SEQ ID NO: 223)	GWISAYNGNT NYA (SEQ ID NO: 250)	CAAEAYGDYSL DPW (SEQ ID NO: 293)
18	Antibody 24, 63	RASQGIGNDL G (SEQ ID NO: 115)	AASNLET (SEQ ID NO: 151)	CLQHHSYPPTF (SEQ ID NO: 183)	YTFTGYMH (SEQ ID NO: 219)	GIINPSGGSTN YA (SEQ ID NO: 259)	CARGPIGYGM DVW (SEQ ID NO: 294)
19	Antibody 25	RTSQSIGTYLN (SEQ ID NO: 116)	DASNLPT (SEQ ID NO: 152)	CQNYNSALF (SEQ ID NO: 184)	FTVGSWYMS (SEQ ID NO: 224)	AHVSDDGSNE FYA (SEQ ID NO: 260)	CARSPGYCSST SCYRYGMDV W (SEQ ID NO: 295)

Combination No.	Antibody No.	CDR-L1	CDR-L2	CDR-L3	CDR-H1	CDR-H2	CDR-H3
20	Antibody 26, 64	RASQSVDTWL A (SEQ ID NO: 117)	EASTLES (SEQ ID NO: 153)	CQQANSFPITF (SEQ ID NO: 185)	YTFTSYMH (SEQ ID NO: 216)	GRINPNSGGT KYA (SEQ ID NO: 261)	CARLGSAFYDL W (SEQ ID NO: 296)
21	Antibody 27, 65, 88, 102	RASQSIENLLA (SEQ ID NO: 118)	AASSLQS (SEQ ID NO: 143)	CQQSYSTPYTF (SEQ ID NO: 186)	YTFTSHDIN (SEQ ID NO: 222)	GWMNANNG NAGYA (SEQ ID NO: 262)	CAKDLSPSSSW STYYYYGMD VW (SEQ ID NO: 297)
22	Antibody 28	RASQGISNWL A (SEQ ID NO: 119)	DASNLD A (SEQ ID NO: 154)	CQQANSLPLTF (SEQ ID NO: 187)	YTFTSYNIH (SEQ ID NO: 225)	GWISAYNGNT NYA (SEQ ID NO: 250)	CALDGGQLGV AFDIW (SEQ ID NO: 298)
23	Antibody 29, 66, 89, 103	RASQSIGSYL A (SEQ ID NO: 120)	GASTRAT (SEQ ID NO: 140)	CQQYGSFPPTF (SEQ ID NO: 188)	GTFFSYAIS (SEQ ID NO: 226)	GIINPSSSTGY A (SEQ ID NO: 263)	CARAGYYDSS GYYSPYYGM DVW (SEQ ID NO: 299)
24	Antibody 30, 67	RASQDIRNDLA (SEQ ID NO: 121)	DASNLET (SEQ ID NO: 141)	CQQSYGTPYTF (SEQ ID NO: 189)	YTFTNFDIN (SEQ ID NO: 227)	GWISAYNGHT NYA (SEQ ID NO: 264)	CAQEAAAGYF DYW (SEQ ID NO: 300)
25	Antibody 31	RSSQSLFHSST NANNLA (SEQ ID NO: 122)	WASTRES (SEQ ID NO: 155)	CQQYYITPLTF (SEQ ID NO: 190)	GTFRSYAIS (SEQ ID NO: 228)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARESVLKGG MDVW (SEQ ID NO: 301)
26	Antibody 32, 68	RASQSIENWL A (SEQ ID NO: 123)	AASSLQS (SEQ ID NO: 143)	CQQSYSTPYTF (SEQ ID NO: 186)	YTFTSYMY (SEQ ID NO: 229)	GWINPNSGNT GYA (SEQ ID NO: 265)	CAKDRRRGVG LAAAGTSAFDI W (SEQ ID NO: 302)
27	Antibody 33, 69, 90, 104	RAGQSIGDYLN (SEQ ID NO: 124)	AASSLQS (SEQ ID NO: 143)	CQQSYSTPWT F (SEQ ID NO: 191)	YTFTSYMH (SEQ ID NO: 216)	GWMNPNSDN TGYA (SEQ ID NO: 266)	CARVGVGYGY YYYGMDVW (SEQ ID NO: 303)
28	Antibody 34, 70, 91	RSSQSLHSNG YNYLD (SEQ ID NO: 106)	LASTRAP (SEQ ID NO: 156)	CMQGSHPWPF (SEQ ID NO: 192)	YTFSNYYMH (SEQ ID NO: 230)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARASMYSSS GFDYW (SEQ ID NO: 304)
29	Antibody 35, 71	RSSQSLHSNG YNYLD (SEQ ID NO: 106)	DASSLES (SEQ ID NO: 145)	CMQGTHWPL TF (SEQ ID NO: 193)	YTFTSYIH (SEQ ID NO: 231)	GTINPSGGSTS YA (SEQ ID NO: 267)	CARETSRWLR DYYYGMDVW (SEQ ID NO: 305)
30	Antibody 36, 72	QASQGISNYLN (SEQ ID NO: 125)	AASSLQS (SEQ ID NO: 143)	CQQSYSSPYTF (SEQ ID NO: 194)	YTFTDNYLH (SEQ ID NO: 232)	GIETSGGSTDY A (SEQ ID NO: 268)	CARSFGGYSYD DAFDIW (SEQ ID NO: 306)
31	Antibody 37	RASQISRWLA (SEQ ID NO: 126)	AASSLES (SEQ ID NO: 157)	CQQTHSFPLTF (SEQ ID NO: 195)	YTLNNYDIN (SEQ ID NO: 233)	GWISGYNGNT NYA (SEQ ID NO: 269)	CARVGSSWEE NDQW (SEQ ID NO: 307)

Combination No.	Antibody No.	CDR-L1	CDR-L2	CDR-L3	CDR-H1	CDR-H2	CDR-H3
32	Antibody 38, 73, 92, 105	RSSQSVLYSSN NKNYLA (SEQ ID NO: 127)	WASTRES (SEQ ID NO: 155)	CQQYYSTPPTF (SEQ ID NO: 196)	GTFSSYDIN (SEQ ID NO: 234)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARDLTLYCSS TSCLDAFDYW (SEQ ID NO: 308)
33	Antibody 39, 74	RASQSVSSYLA (SEQ ID NO: 128)	GTSTRAT (SEQ ID NO: 158)	CQQYGSLPFTF (SEQ ID NO: 197)	GTFSNYGFS (SEQ ID NO: 235)	GWMSPSSGN TGYA (SEQ ID NO: 270)	CARERSGSYFD YW (SEQ ID NO: 309)
34	Antibody 40	KSSQSVLYSSN NKNYLA (SEQ ID NO: 129)	WASTRAS (SEQ ID NO: 159)	CQQYYTTPPTF (SEQ ID NO: 198)	GTFSSY AIS (SEQ ID NO: 226)	GRIHPRDGSTD YA (SEQ ID NO: 271)	CARVSLRFLED YGMDVW (SEQ ID NO: 310)
35	Antibody 41, 75	RSSQSLHNSNG YNYLD (SEQ ID NO: 106)	AASSLQS (SEQ ID NO: 143)	CMQALQTPLT F (SEQ ID NO: 199)	GTFSNYAIS (SEQ ID NO: 236)	GGIPIFGSTAS YA (SEQ ID NO: 272)	CARGVGDDTL TDW (SEQ ID NO: 311)
36	Antibody 42	KSSQSLLYTSN DRNYLA (SEQ ID NO: 130)	WASTRES (SEQ ID NO: 155)	CQQYYSSPYTF (SEQ ID NO: 200)	YTFTSYHMH (SEQ ID NO: 237)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARGGRVVRG VIKGFDPW (SEQ ID NO: 312)
37	Antibody 43	RASQSISSWLA (SEQ ID NO: 131)	DASNLET (SEQ ID NO: 141)	CQQSFSTPPTF (SEQ ID NO: 201)	GTFTSYDIN (SEQ ID NO: 238)	GWISAYNGHT NYA (SEQ ID NO: 264)	CAREDSSWYF DLW (SEQ ID NO: 313)
38	Antibody 44, 76, 93	RASQSVSSNLA (SEQ ID NO: 132)	GASTRAT (SEQ ID NO: 140)	CQQYNTYPITF (SEQ ID NO: 202)	GTFSKIAVS (SEQ ID NO: 239)	GLINPNSSGTD YA (SEQ ID NO: 273)	CAKDFRGGDY YYYGMDVW (SEQ ID NO: 314)
39	Antibody 45, 77, 94, 106	RASQSISSYLN (SEQ ID NO: 109)	AASSLQS (SEQ ID NO: 143)	CQQSYSTPLTF (SEQ ID NO: 203)	YTFTSYGIS (SEQ ID NO: 240)	GWISAYNGNT NYA (SEQ ID NO: 250)	CARGTYYDYI WGSYRYSWFD YW (SEQ ID NO: 315)
40	Antibody 46	QASQDISNYLN (SEQ ID NO: 133)	AASTLQT (SEQ ID NO: 160)	CQQSYSTPWT F (SEQ ID NO: 191)	YTFSSY AIS (SEQ ID NO: 241)	GWMDPNNSGN TGYA (SEQ ID NO: 274)	CARESSYYYDS SGYYPGWYFD LW (SEQ ID NO: 316)
41	Antibody 47, 78	RASQRIGSYLN (SEQ ID NO: 134)	GASNLQS (SEQ ID NO: 161)	CQQANSFPPTF (SEQ ID NO: 204)	YTFTTYGIS (SEQ ID NO: 242)	GWMDPNNSGS TGYA (SEQ ID NO: 275)	CARGRGNSSY YYMDVW (SEQ ID NO: 317)
42	Antibody 48, 79, 95, 107	RASESITNWLA (SEQ ID NO: 135)	KASSLES (SEQ ID NO: 162)	CQQSYGTPYTF (SEQ ID NO: 189)	YTFTSYMH (SEQ ID NO: 216)	GWMNPNSGN TGYA (SEQ ID NO: 249)	CARDQMYSSY GMDVW (SEQ ID NO: 318)
43	Antibody 49	KSSQSVLYSSN NKNYLA (SEQ ID NO: 129)	WASTRES (SEQ ID NO: 155)	CQQYYSTPYTF (SEQ ID NO: 205)	GTFSSY AIS (SEQ ID NO: 226)	GVINPSGGSTS YA (SEQ ID NO: 276)	CARESRGYYG MDVW (SEQ ID NO: 319)

Combination No.	Antibody No.	CDR-L1	CDR-L2	CDR-L3	CDR-H1	CDR-H2	CDR-H3
44	Antibody 50	RASQSISSWLA (SEQ ID NO: 131)	DTSNLQGG (SEQ ID NO: 163)	CQQYDSFPWTF (SEQ ID NO: 206)	YTFTGYMH (SEQ ID NO: 219)	GTINPSGGSTSYA (SEQ ID NO: 267)	CVKGNNGYYDLW (SEQ ID NO: 320)
45	Antibody 51, 80, 96, 108	RASQGIRNDLG (SEQ ID NO: 136)	SASNLQS (SEQ ID NO: 164)	CQQSYDVPLTF (SEQ ID NO: 207)	YTFTRYDIN (SEQ ID NO: 243)	GWMNPNSGNTGYA (SEQ ID NO: 249)	CARERVGYCSSLTSLHPLDYW (SEQ ID NO: 321)
46	Antibody 52, 81	RASQSISSWLA (SEQ ID NO: 131)	DATTLES (SEQ ID NO: 165)	CQQYDSYPWTF (SEQ ID NO: 208)	YTFTSYDIN (SEQ ID NO: 213)	GWISGYNGNTNYA (SEQ ID NO: 269)	CARSFDWLLLDYW (SEQ ID NO: 322)
47	Antibody 53, 82, 97, 109	RASQSVSKYLA (SEQ ID NO: 137)	AISARAA (SEQ ID NO: 166)	CQQYSSPPTF (SEQ ID NO: 169)	HTFNNNYIH (SEQ ID NO: 244)	GIINPSGGSTSYA (SEQ ID NO: 256)	CARQIQDYGYYYGMDVW (SEQ ID NO: 323)

[0091] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 100, SEQ ID NO: 138, SEQ ID NO: 167; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 209, SEQ ID NO: 245, and SEQ ID NO: 277.

[0092] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 101, SEQ ID NO: 139, SEQ ID NO: 168; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 210, SEQ ID NO: 246, and SEQ ID NO: 278.

[0093] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 102, SEQ ID NO: 140, SEQ ID NO: 169; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 211, SEQ ID NO: 247, and SEQ ID NO: 279.

[0094] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 103, SEQ ID NO: 141, SEQ ID NO: 170; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 212, SEQ ID NO: 248, and SEQ ID NO: 280.

[0095] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 104, SEQ ID NO: 141, SEQ ID NO: 171; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 213, SEQ ID NO: 249, and SEQ ID NO: 281.

[0096] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 105, SEQ ID NO: 142, SEQ ID NO: 172; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 214, SEQ ID NO: 250, and SEQ ID NO: 282.

[0097] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 143, SEQ ID NO: 173; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 215, SEQ ID NO: 251, and SEQ ID NO: 283.

[0098] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 144, SEQ ID NO: 174; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 216, SEQ ID NO: 252, and SEQ ID NO: 284.

[0099] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 107, SEQ ID NO: 141, SEQ ID NO: 175; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 217, SEQ ID NO: 253, and SEQ ID NO: 285.

[00100] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 108, SEQ ID NO: 144, SEQ ID NO: 176; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 216, SEQ ID NO: 254, and SEQ ID NO: 286.

[00101] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 109, SEQ ID NO: 145, SEQ ID NO: 171; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 218, SEQ ID NO: 255, and SEQ ID NO: 287.

[00102] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 110, SEQ ID NO: 146, SEQ ID NO: 177; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 219, SEQ ID NO: 249, and SEQ ID NO: 288.

[00103] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 111, SEQ ID NO: 147, SEQ ID NO: 178; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 220, SEQ ID NO: 256, and SEQ ID NO: 289.

[00104] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 112, SEQ ID NO: 148, SEQ ID NO: 179; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 213, SEQ ID NO: 249, and SEQ ID NO: 290.

[00105] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 113, SEQ ID NO: 143, SEQ ID NO: 180; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 221, SEQ ID NO: 257, and SEQ ID NO: 291.

[00106] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 149, SEQ ID NO: 181; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 222, SEQ ID NO: 258, and SEQ ID NO: 292.

[00107] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 114, SEQ ID NO: 150, SEQ ID NO: 182; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 223, SEQ ID NO: 250, and SEQ ID NO: 293.

[00108] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 115, SEQ ID NO: 151, SEQ ID NO: 183; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 219, SEQ ID NO: 259, and SEQ ID NO: 294.

[00109] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 116, SEQ ID NO: 152, SEQ ID NO: 184; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 224, SEQ ID NO: 260, and SEQ ID NO: 295.

[00110] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 117, SEQ ID NO: 153, SEQ ID NO: 185; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 216, SEQ ID NO: 261, and SEQ ID NO: 296.

[00111] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 118, SEQ ID NO: 143, SEQ ID NO: 186; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 222, SEQ ID NO: 262, and SEQ ID NO: 297.

[00112] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 119, SEQ ID NO: 154, SEQ ID NO: 187; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 225, SEQ ID NO: 250, and SEQ ID NO: 298.

[00113] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 120, SEQ ID NO: 140, SEQ ID NO: 188; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 226, SEQ ID NO: 263, and SEQ ID NO: 299.

[00114] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 121, SEQ ID NO: 141, SEQ ID NO: 189; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 227, SEQ ID NO: 264, and SEQ ID NO: 300.

[00115] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 122, SEQ ID NO: 155, SEQ ID NO: 190; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 228, SEQ ID NO: 249, and SEQ ID NO: 301.

[00116] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 123, SEQ ID NO: 143, SEQ ID NO: 186; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 229, SEQ ID NO: 265, and SEQ ID NO: 302.

[00117] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 124, SEQ ID NO: 143, SEQ ID NO: 191; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 216, SEQ ID NO: 266, and SEQ ID NO: 303.

[00118] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 156, SEQ ID NO: 192; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 230, SEQ ID NO: 249, and SEQ ID NO: 304.

[00119] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 145, SEQ ID NO: 193; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 231, SEQ ID NO: 267, and SEQ ID NO: 305.

[00120] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 125, SEQ ID NO: 143, SEQ ID NO: 194; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 232, SEQ ID NO: 268, and SEQ ID NO: 306.

[00121] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 126, SEQ ID NO: 157, SEQ ID NO: 195; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 233, SEQ ID NO: 269, and SEQ ID NO: 307.

[00122] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 127, SEQ ID NO: 155, SEQ ID NO: 196; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 234, SEQ ID NO: 249, and SEQ ID NO: 308.

[00123] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 128, SEQ ID NO: 158, SEQ ID NO: 197; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 235, SEQ ID NO: 270, and SEQ ID NO: 309.

[00124] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 129, SEQ ID NO: 159, SEQ ID NO: 198; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 226, SEQ ID NO: 271, and SEQ ID NO: 310.

[00125] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 106, SEQ ID NO: 143, SEQ ID NO: 199; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 236, SEQ ID NO: 272, and SEQ ID NO: 311.

[00126] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 130, SEQ ID NO: 155, SEQ ID NO: 200; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 237, SEQ ID NO: 249, and SEQ ID NO: 312.

[00127] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 131, SEQ ID NO: 141, SEQ ID NO: 201; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 238, SEQ ID NO: 264, and SEQ ID NO: 313.

[00128] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 132, SEQ ID NO: 140, SEQ ID NO: 202; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 239, SEQ ID NO: 273, and SEQ ID NO: 314.

[00129] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 109, SEQ ID NO: 143, SEQ ID NO: 203; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 240, SEQ ID NO: 250, and SEQ ID NO: 315.

[00130] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 133, SEQ ID NO: 160, SEQ ID NO: 191; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 241, SEQ ID NO: 274, and SEQ ID NO: 316.

[00131] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 134, SEQ ID NO: 161, SEQ ID NO: 204; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 242, SEQ ID NO: 275, and SEQ ID NO: 317.

[00132] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 135, SEQ ID NO: 162, SEQ ID NO: 189; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 216, SEQ ID NO: 249, and SEQ ID NO: 318.

[00133] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 129, SEQ ID NO: 155, SEQ ID NO: 205; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 226, SEQ ID NO: 276, and SEQ ID NO: 319.

[00134] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 131, SEQ ID NO: 163, SEQ ID NO: 206; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 219, SEQ ID NO: 267, and SEQ ID NO: 320.

[00135] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 136, SEQ ID NO: 164, SEQ ID NO: 207; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 243, SEQ ID NO: 249, and SEQ ID NO: 321.

[00136] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 131, SEQ ID NO: 165, SEQ ID NO: 208; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 213, SEQ ID NO: 269, and SEQ ID NO: 322.

[00137] In some embodiments, provided herein is a SIRP γ antibody, wherein the antibody comprises the amino acid sequences of the following three VL CDRs: SEQ ID NO: 137, SEQ ID NO: 166, SEQ ID NO: 169; and/or comprises the amino acid sequences of the following three VH CDRs SEQ ID NO: 244, SEQ ID NO: 256, and SEQ ID NO: 323.

ii. Exemplary SIRP γ Antibodies – Variable Region Sequences

[00138] The term variable domain and variable region are used interchangeably and refer to the portions of the light and heavy chains of an antibody that include the complementarity determining regions and framework regions (FRs).

[00139] Table 2 provides amino acid sequences for the variable domains of exemplary SIRP γ antibodies of the disclosure. Accordingly, in some embodiments a SIRP γ antibody of the disclosure comprises a variable heavy chain comprising an amino acid sequence selected from SEQ ID NOS: 324-370, or at least 80% sequence identity thereto; and/or in some embodiments a SIRP γ antibody of the disclosure comprises a variable light chain comprising an amino acid sequence selected from SEQ ID NOS: 371-417, or at least 80% sequence identity thereto.

[00140] In some embodiments, a SIRP γ antibody of the disclosure comprises the combination of VH/VL variable chain amino acid sequences of any one of the 47 combinations presented in Table 2.

Table 2: Exemplary Variable Heavy Chain and Variable Light Chain Amino Acid Sequence Combinations of SIRP γ Antibodies

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
1	Antibody 1,3,4,7, 110	QVQLVESGGGVVQPGRSLRLSCAASGFTFS NYGMHWVRQAPGKGLEWVAFIWDGSN KNYADSVKGRFTISRDNPTNTLYLQMNSLRA EDTAVYYCAREEQWLDYWGQGTLVTVSS (SEQ ID NO: 324)	EIVMTQSPATLSVSPGERATLSCRASQSVSS NLAWYQQKPGQAPRLIYGASTRATGIPARF SGSGSGTEFTLTISLQSEDFAVYYCQQYNN WPLTFGGGTKEIK (SEQ ID NO: 371)
2	Antibody 2,5,6,8, 111	QVQLVQSGAEVKKPGASVKVSCKASGYTFT GYHIHWVRQAPGQGLEWMGWINPNSGG TNYAQKFQGRVTMTSDTSINTAYMELNRLR SDDTAVFYCARERVGYSRPSCLDDLNIWG QGTMVTVSS (SEQ ID NO: 325)	DIQMTQSPSTLSASVGDRTITCRASQSISS WLAWYQQKPGKAPKLLIYKASSLETGVPSTRF SGSGSGTEFTLTISLQPDFFATYYCQQYDSY YTFGQGTKLEIK (SEQ ID NO: 372)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
3	Antibody 9, 54, 83, 98	QVQLVQSGAEVKKPGASVKVSCKASGYSFS DYMHVWRQAPGQGLEWMGMWSPNSG NTGYAQKFQGRVTMTRDTSTSTVYMELSSL RSEDVAVYYCARQREEYGHYYYGMDVWGQ GTMVTVSS (SEQ ID NO: 326)	EIVMTQSPATLSVSPGERATLSCRASQSLGST YLAWYQQKPGQAPRLLIYGASTRATGIPARF SGSGSGTEFTLTISLQSEDFAVYYCQQYYSS PPTFGQGTKVEIK (SEQ ID NO: 373)
4	Antibody 10	QVQLVQSGAEVKKPGASVKVSCKASGGTFS NYDISWVRQAPGQGLEWMGMIDPSGGST SYAQKFQGRVTMTRDTSTSTVYMELSSLRSE DTAVYYCARPYSSGWYFDYWGQGTLLTVS S (SEQ ID NO: 327)	DIQMTQSPSSLSASVGDRTITCQASQDIHN YLNWYQQKPGKAPKLLIYDASNLETGVPSRF SGSGSGTDFTLTISSLQPEDFATYYCQQSYNT PPTFGQGTREIK (SEQ ID NO: 374)
5	Antibody 11	QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYDINWVRQAPGQGLEWMGMWNPNSG NTGYAQKFQGRVTMTRDTSTSTVYMELSSL RSEDVAVYYCAKGAAGTYYYGMDVWGQ GTTVTVSS (SEQ ID NO: 328)	DIQMTQSPSSLSASVGDRTITCRASQTINN YLNWYQQKPGKAPKLLIYDASNLETGVPSRF SGSGSGTDFTLTISSLQPEDFATYYCQQANSF PLTFGQGTKVEIK (SEQ ID NO: 375)
6	Antibody 12	QVQLVQSGAEVKKPGASVKVSCKASGGTFG SYGINWVRQAPGQGLEWMGWISAYNGNT NYAQKLQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCARDGIDYGGNSGYDYWGQGTLL TVTVSS (SEQ ID NO: 329)	DIQMTQSPSSLSASVGDRTITCRASQNIIRN YLNWYQQKPGKAPKLLIYAASSLQGGVPSRF SGSGSGTDFTLTISSLQPEDFATYYCQQSYN GPYTFGQGTKVEIK (SEQ ID NO: 376)
7	Antibody 13, 55	EVQLLESGGGLVQPGGSLRLSCAASGFTFSN SDMNWVRQAPGKLEWVSYISSSGNTIYYA DSVKGRFTISRDNKNTLYLQMNSLRAEDTA VYYCARSNWNYPDYMDVWGKGTITVTV SS (SEQ ID NO: 330)	DIVMTQSPSLPVTTPGEPASISCRSSQSLLS NGYNYLDWYLQKPGQSPQLLIYAASSLQSG VPDRFSGSGSGTDFTLKISRVEAEDVGVYYC MQGTHWPPTFGQGTKVEIK (SEQ ID NO: 377)
8	Antibody 14, 56	QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYMHVWRQAPGQGLEWMGWDPNNG DTGYAQKFQGRVTMTRDTSTSTVYMELSSL RSEDVAVYYCARDNWGSLDVWGKGTITVTV SS (SEQ ID NO: 331)	DIVMTQSPSLPVTTPGEPASISCRSSQSLLS NGYNYLDWYLQKPGQSPQLLIYAASSLQSG VPDRFSGSGSGTDFTLKISRVEAEDVGVYYC MQGLQTLVSFGQGTKLEIK (SEQ ID NO: 378)
9	Antibody 15	QVQLVQSGAEVKKPGASVKVSCKASGYSFT SYGISWVRQAPGQGLEWMGWISPYNGNT NYAQKLQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCAREAYGDYFDYWGQGTLLV TVSS (SEQ ID NO: 332)	DIQMTQSPSSLSASVGDRTITCRASQGVG DRSAWYQQKPGKAPKLLIYDASNLETGVPS RFSGSGSGTDFTLTISSLQPEDFATYYCQQA DTFPYTFGQGTKLEIK (SEQ ID NO: 379)
10	Antibody 16, 57, 84, 99	QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYMHVWRQAPGQGLEWMGWINPNSGN AGFAQKFQGRVTMTRDTSTSTVYMELSSLR SEDTAVYYCARGPVSYGPFDYWGQGTLLV VSS (SEQ ID NO: 333)	DIQMTQSPSSLSASVGDRTITCRASQGISTY LAWYQQKPGKAPKLLIYAASSLQSGVPSRFS GSGSGTDFTLTISSLQPEDFATYYCQQSHSAP ITFGQGTKVEIK (SEQ ID NO: 380)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
11	Antibody 17	QVQLVQSGAEVKKPGASVKVSCKASGYTFT RNYVHWVRQAPGQGLEWMGRINPNSSGGT NTAQKFQGRVTMTRDTSTSTVYMELSSLR EDTAVYYCARLGDVAVAASFDYWGGQTLV TVSS (SEQ ID NO: 334)	DIQMTQSPSSLSASVGDRVTITCRASQSISSY LNWYQQKPGKAPKLLIYDASSLESGVPSRFS SGSGSGTDFTLTISLQPEDFATYYCQQANSF PLTFGPGTKVDIK (SEQ ID NO: 381)
12	Antibody 18	QVQLVQSGAEVKKPGASVKVSCKASGYTFT GYMHVWRQAPGQGLEWMGWMNPNS GNTGYAQKFQGRVTMTRDTSTSTVYMELSS LRSEDATVYYCARGSGYDAGVFDYWGGQGT LTVSS (SEQ ID NO: 335)	DIQMTQSPSSLSASVGDRVTITCRASQGIGN DLAWYQQKPGKAPKLLIYDAKDLHPGVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQSYS FPRTFGQGRLEIK (SEQ ID NO: 382)
13	Antibody 19, 58	QVQLVQSGAEVKKPGASVKVSCKASGYTFT AYMHVWRQAPGQGLEWMGIINPSGGST SYAQKFQGRVTMTRDTSTSTVYMELSSLRSE DTAVYYCARDSGWYAPGYYYGMDVWGQG TTVTSS (SEQ ID NO: 336)	DIQMTQSPSSLSASVGDRVTITCRASESISH WLAHYQQKPGKAPKLLIYGASTLQSGVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQSYT PPLTFGGGKVEIK (SEQ ID NO: 383)
14	Antibody 20, 59, 85, 100	QVQLVQSGAEVKKPGASVKVSCKASGYTFT SYDINWVRQAPGQGLEWMGWMNPNSG NTGYAQKFQGRVTMTRDTSTSTVYMELSS RSEDATVYYCARESYAYCSSTSCYDAFDIWG QGTMVTSS (SEQ ID NO: 337)	DIVMTQSPDSLAVSLGERATINCKSSQSLLYS SNNKNYLAHYQQKPGQPPKLLIYWASIRES GVPDRFSGSGSGTDFTLTISLQAEDEVAVYY CQQYLPPLTFGQGTKEIK (SEQ ID NO: 384)
15	Antibody 21, 60, 86, 101	EVQLLESGGGLVQPGGSLRLSAAAGFTLGS YWMHWVRQAPGKGLEWVSLISWDGGSTY YADSVKGRFTISRDNKNTLYLQMNSLRAED TAVYYCAKGPWVGYSYDLNYYYYGMDV WGQGTTVTSS (SEQ ID NO: 338)	DIQMTQSPSSLSASVGDRVTITCRASQDIRR ALAWYQQKPGKAPKLLIYAASSLQSGVPSRF SGSGSGTDFTLTISLQPEDFATYYCLQHNSY PPTFGQGTKEIK (SEQ ID NO: 385)
16	Antibody 22, 61, 87	QVQLVQSGAEVKKPGASVKVSCKASGYTFT SHDINWVRQAPGQGLEWMGINSNPSGGSTY YAKKFQGRVTMTRDTSTSTVYMELSSLRSE DTAVYYCASSRRYWNGAFDYWGQGLTVTV SS (SEQ ID NO: 339)	DIVMTQSPSLPVTTPGEPASISCRSSQSLHLS NGYNYLDWYLQKPGQSPQLLIYLGSSRASG VPDRFSGSGSGTDFTLKISRVEAEDVGVYYC MQALQTPTFGQGTREIK (SEQ ID NO: 386)
17	Antibody 23, 62	QVQLVQSGAEVKKPGASVKVSCKASGGTFS NYDINWVRQAPGQGLEWMGWISAYNGN TNYAQLQGRVTMTRDTSTSTVYMELSSLR SEDTAVYYCAAEAYGDYSLDPWGQGLTVTV SS (SEQ ID NO: 340)	DIQMTQSPSSLSASVGDRVTITCQASQGISS YLNWYQQKPGKAPKLLIYAASSLQNGVPSRF SGSGSGTDFTLTISLQPEDFATYYCQQSYST PITFGQGTREIK (SEQ ID NO: 387)
18	Antibody 24, 63	QVQLVQSGAEVKKPGASVKVSCKASGYTFT GYMHVWRQAPGQGLEWMGIINPSGGST NYAQKFQGRVTMTRDTSTSTVYMELSSLR EDTAVYYCARGPIGYGMDVWGQGLTVTVS S (SEQ ID NO: 341)	DIQMTQSPSSLSASVGDRVTITCRASQGIGN DLGWYQQKPGKAPKLLIYAASNLETGVPSRF SGSGSGTDFTLTISLQPEDFATYYCLQHHSY PPTFGQGTKEIK (SEQ ID NO: 388)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
19	Antibody 25	EVQLLESGGGLVQPGGSLRLSCAASGFTVGS WYMSWVRQAPGKGLEWVAHVSDDGSSNE FYADSVKGRFTISRDNKNTLYLQMNSLRAE DTAVYYCARSPGYCSSTSCYRYGMDVWG QGTTVTVSS (SEQ ID NO: 342)	DIQMTQSPSSLSASVGDRTITCRTSQSIGTY LNWYQQKPGKAPKLLIYDASNLPTGVPSRFS SGSGSGTDFTLTISLQPEDFATYYCQNYNSAL FGPGTKVDIK (SEQ ID NO: 389)
20	Antibody 26, 64	QVQLVQSGAEVKKPGASVKVSCASGYTFT SYIMHWVRQAPGQGLEWMGRINPNSSGG TKYAQKFQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCARLGSAYFDLWGRGTLTVSS (SEQ ID NO: 343)	DIQMTQSPSSLSASVGDRTITCRASQSVDT WLAWYQQKPGKAPKLLIYEASTLESGVPSRF SGSGSGTDFTLTISLQPEDFATYYCQQAANSF PITFGQGTRLEIK (SEQ ID NO: 390)
21	Antibody 27, 65, 88, 102	QVQLVQSGAEVKKPGASVKVSCASGYTFT SHDINWVRQAPGQGLEWMGWMNANNG NAGYAQKFQGRVTMTRDTSTSTVYMELSSL RSED TAVYYCAKDLSPSSSWSTYYYYYGM DV WGQGTMTVTSS (SEQ ID NO: 344)	DIQMTQSPSSLSASVGDRTITCRASQSISNL LAWYQQKPGKAPKLLIYAASSLQSGVPSRFS SGSGSGTDFTLTISLQPEDFATYYCQQSYSTP YTFGQGTKLEIK (SEQ ID NO: 391)
22	Antibody 28	QVQLVQSGAEVKKPGASVKVSCASGYTFT SYNIHWVRQAPGQGLEWMGWISAYNGNT NYAQKLQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCALDGGQLGVAFDIWGQGTMTVT VSS (SEQ ID NO: 345)	DIQMTQSPSSLSASVGDRTITCRASQGISEN WLAWYQQKPGKAPKLLIYDASNLDAVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQAANS LPLTFGGGKVEIK (SEQ ID NO: 392)
23	Antibody 29, 66, 89, 103	QVQLVQSGAEVKKPGASVKVSCASGGTFS SYAISWVRQAPGQGLEWMGIINPSSSTGY AQKFQGRVTMTRDTSTSTVYMELSSLRSED TAVYYCARAGYYDSSGYYSPYYGMDVWG QGTTVTVSS (SEQ ID NO: 346)	EIVMTQSPATLSVSPGERATLSCRASQSIGS YLAWYQQKPGQAPRLIYGASTRATGIPARF SGSGSGTEFTLTISLQSEDAVYYCQQYGSF PFTFGPGTKVDIK (SEQ ID NO: 393)
24	Antibody 30, 67	QVQLVQSGAEVKKPGASVKVSCASGYTFT NFDINWVRQAPGQGLEWMGWISAYNGHT NYAQNQLQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCAQEAAGYFDYWGGTLTVSS (SEQ ID NO: 347)	DIQMTQSPSSLSASVGDRTITCRASQDIRN DLAWYQQKPGKAPKLLIYDASNLETGVPSRF SGSGSGTDFTLTISLQPEDFATYYCQQSYGT PYTFGQGTKLEIK (SEQ ID NO: 394)
25	Antibody 31	QVQLVQSGAEVKKPGASVKVSCASGGTFR SYAISWVRQAPGQGLEWMGWMNPNSGN TGYAQKFQGRVTMTRDTSTSTVYMELSSLR SED TAVYYCARESVLKGGMDVWGQGTTVT VSS (SEQ ID NO: 348)	DIVMTQSPDSLAVSLGERATINCRSSQSLFHS STNANNLAWYQQKPGQPPKLLIYWASTRES GVPDRFSGSGSGTDFTLTISLQAEDVAVYY CQYYITPLTFGQGTRLEIK (SEQ ID NO: 395)
26	Antibody 32, 68	QVQLVQSGAEVKKPGASVKVSCASGYTFT SYMYWVRQAPGQGLEWMGWINPNNSGN TGYAQKFQGRVTMTRDTSTSTVYMELSSLR SED TAVYYCAKDRRGVGLAAAGTSAFDIW GQGTMTVTSS (SEQ ID NO: 349)	DIQMTQSPSSLSASVGDRTITCRASQSISN WLAWYQQKPGKAPKLLIYAASSLQSGVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQSYS TPYTFGQGTKLEIK (SEQ ID NO: 396)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
27	Antibody 33, 69, 90, 104	QVQLVQSGAEVKKPGASVKVSCKASGYTFTSYMHVWRQAPGQGLEWMGWMNPNSDNTGYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARVGVGYGYYGMDVWVGQTTVTSS (SEQ ID NO: 350)	DIQMTQSPSSLSASVGDRTITCRAGQSIGDYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQSYSTPWTFGQGTKVEIK (SEQ ID NO: 397)
28	Antibody 34, 70, 91	QVQLVQSGAEVKKPGASVKVSCKASGYTFSNYMHVWRQAPGQGLEWMGWMNPNSGNTGYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARASMYSSSGFDYWGGQTLVTSS (SEQ ID NO: 351)	DIVMTQSPSLPVTGPGEASISCRSSQSLHNSGYNLDWYLQKPGQSPQLLIYLASTRAPGVDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQGSHPWPSFGQGTRLEIK (SEQ ID NO: 398)
29	Antibody 35, 71	QVQLVQSGAEVKKPGASVKVSCKASGYTFTSYIHVWRQAPGQGLEWMGTINPSGGSTSYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARETSRWLRDYYGMDVWVGQGTTVTSS (SEQ ID NO: 352)	DIVMTQSPSLPVTGPGEASISCRSSQSLHNSGYNLDWYLQKPGQSPQLLIYDASSLESGVPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQGTHWPLTFGGGQTKVEIK (SEQ ID NO: 399)
30	Antibody 36, 72	QVQLVQSGAEVKKPGASVKVSCKASGYTFTDNYLHWVRQAPGQGLEWMGIETSGGSTDYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARSGGYSYDDAFDIWGGQTTVTSS (SEQ ID NO: 353)	DIQMTQSPSSLSASVGDRTITCQASQGISNYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQSYSSPYTFGQGQTKVEIK (SEQ ID NO: 400)
31	Antibody 37	QVQLVQSGAEVKKPGASVKVSCKASGYTLNNDINWVRQAPGQGLEWMGWISGYNGNTNYAQKLQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARVGSSEENDQWGGQTLVTSS (SEQ ID NO: 354)	DIQMTQSPSSLSASVGDRTITCRASQSISRWLAWYQQKPGKAPKLLIYAASSLESGVPSRFSGSGSGTDFTLTISLQPEDFATYYCQQTHSPLTFGGGQTKVEIK (SEQ ID NO: 401)
32	Antibody 38, 73, 92, 105	QVQLVQSGAEVKKPGASVKVSCKASGGTFSYDINWVRQAPGQGLEWMGWMNPNSGNTGYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARDLTYCSSTSCDAFDYWGGQTLVTSS (SEQ ID NO: 355)	DIVMTQSPDSLAVSLGERATINCRSSQSVLYSSNNKNYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGSGTDFTLTISLQAEDVAVYYCQYYSTPPTFGQGQTKLEIK (SEQ ID NO: 402)
33	Antibody 39, 74	QVQLVQSGAEVKKPGASVKVSCKASGGTFSNYGFSWVRQAPGQGLEWMGWMSPSSGNTGYAQKFQGRVTMTRDTSTSTVYMELSSLRSEDATVYYCARERSGSYFDYWGGQTLVTSS (SEQ ID NO: 356)	EIVMTQSPATLSVSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLLIYGTSTRATGIPARFSGSGSGTEFTLTISLQSEDFAVYYCQQYGLPFTFGQGRLEIK (SEQ ID NO: 403)
34	Antibody 40	QVQLVQSGAEVKKPGSSVKVSCKASGGTFSYAISWVRQAPGQGLEWVGRIHPRDGGSTDYAQKFQGRVTITADESTSTAYMELSSLRSEDATVYYCARVSLRFLEDYGMVWVGQTTVTSS (SEQ ID NO: 357)	DIVMTQSPDSLAVSLGERATINCKSSQSVLYSSNNKNYLAWYQQKPGQPPKLLIYWASTRASGVPDRFSGSGSGTDFTLTISLQAEDVAVYYCQYYTTPPTFGQGQTRLEIK (SEQ ID NO: 404)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
35	Antibody 41, 75	QVQLVQSGAEVKKPGSSVKVSKASGGTFS NYAISWVRQAPGQGLEWMGGIPIFGSTAS YAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCARGVGDDTLTDWGQGLTVTVSS (SEQ ID NO: 358)	DIVMTQSPSLPVTGPGEASISCRSSQSLHLS NGYNYLDWYLQKPGQSPQLLIYAASSLQSG VPDRFSGSGSGTDFTLKISRVEAEDVGVYYC MQALQTPITFGGGTKVEIK (SEQ ID NO: 405)
36	Antibody 42	QVQLVQSGAEVKKPGASVKVSKASGYTFT SYMHMWVRQAPGQGLEWMGWMNPNSG NTGYAQKFQGRVTMTRDTSTSTVYMELSSL RSED TAVYYCARGGRVVRGVIKGFDPWG QGLTVTVSS (SEQ ID NO: 359)	DIVMTQSPDSLAVSLGERATINCKSSQSLLYT SNDRNILAWYQQKPGQPPKLLIYWASTRES GVPDRFSGSGSGTDFTLTISLQAEDVAVYY CQQYYSSPYTFGQGTKEIK (SEQ ID NO: 406)
37	Antibody 43	QVQLVQSGAEVKKPGASVKVSKASGGTFT SYDINWVRQAPGQGLEWMGWISAYNGHT NYAQNLRGRTMTRDTSTSTVYMELSSLRS EDTAVYYCAREDSWYFDLWGRGLTVTVSS (SEQ ID NO: 360)	DIQMTQSPSSLSASVGDRTITCRASQSISS WLAWYQQKPGKAPKLLIYDASNLETGVPSR FSGSGSGTDFTLTISLQPEDFATYYCQSF TPPTFGQGTKEIK (SEQ ID NO: 407)
38	Antibody 44, 76, 93	QVQLVQSGAEVKKPGSSVKVSKASGGTFS KIAVSWVRQAPGQGLEWMGLINPNSGGTD YAQKFQGRVTITADESTSTAYMELSSLRSED TAVYYCAKDFRGDDYIYGMVWVGQGT TVTVSS (SEQ ID NO: 361)	EIVMTQSPATLSVSPGERATLSCRASQSVSS NLAWYQQKPGQAPRLIYGASTRATGIPARF SGSGSGTEFTLTISLQSEDFAVYYCQYNTY PITFGQGTKEIK (SEQ ID NO: 408)
39	Antibody 45, 77, 94, 106	QVQLVQSGAEVKKPGASVKVSKASGYTFT SYGISWVRQAPGQGLEWMGWISAYNGNT NYAQKFQGRVTMTRDTSTSTVYMELSSLRS EDTAVYYCARGTYDYIWGSYRYSWFDYW GQGLTVTVSS (SEQ ID NO: 362)	DIQMTQSPSSLSASVGDRTITCRASQSISSY LNWYQQKPGKAPKLLIYAASSLQSGVPSRFS GSGSGTDFTLTISLQPEDFATYYCQSYSTP LTFGGGTKEIK (SEQ ID NO: 409)
40	Antibody 46	QVQLVQSGAEVKKPGASVKVSKASGYTFS SYAISWVRQAPGQGLEWMGWMDPNNSGN TGYAQKFQGRVTMTRDTSTSTVYMELSSLR SEDTAVYYCAESSYDSSGYYPGWYFDL WGRGLTVTVSS (SEQ ID NO: 363)	DIQMTQSPSSLSASVGDRTITCQASQDISN YLNWYQQKPGKAPKLLIYAASLTGTGVP SRFSGSGSGTDFTLTISLQPEDFATYYCQSYST PWTFGPGTKVDIK (SEQ ID NO: 410)
41	Antibody 47, 78	QVQLVQSGAEVKKPGASVKVSKASGYTFT TYGISWVRQAPGQGLEWMGWMDPNNSGS TGYAQKFQGRVTMTRDTSTSTVYMELSSLR SEDTAVYYCARGRNSYIYMDVWGKGT TVTVSS (SEQ ID NO: 364)	DIQMTQSPSSLSASVGDRTITCRASQRIGSY LNWYQQKPGKAPKLLIYGASNLQSGVPSRFS GSGSGTDFTLTISLQPEDFATYYCQANSF PFTFGPGTKVDIK (SEQ ID NO: 411)
42	Antibody 48, 79, 95, 107	QVQLVQSGAEVKKPGASVKVSKASGYTFT SYMHMWVRQAPGQGLEWMGWMNPNSG NTGYAQKFQGRVTMTRDTSTSTVYMELSSL RSED TAVYYCARDQMYSSYGMVWVGQGT TVTVSS (SEQ ID NO: 365)	DIQMTQSPSSLSASVGDRTITCRASESITN WLAWYQQKPGKAPKLLIYKASSLESVPSR FSGSGSGTDFTLTISLQPEDFATYYCQSYGT PYTFGQGTKEIK (SEQ ID NO: 412)

Combination No.	Antibody No.	Variable Heavy Chain Amino Acid Sequence	Variable Light Chain Amino Acid Sequence
43	Antibody 49	QVQLVQSGAEVKKPGSSVKVSCASGGTFS SYAISWVRQAPGQGLEWMGVINPSGGSTS YAQKFQGRVTITADESTSTAYMELSSLRSE TAVYYCARESRGYGMDVWGQGTTVTSS (SEQ ID NO: 366)	DIVMTQSPDSLAVSLGERATINCKSSQSVLYS SNNKNYLAWYQQKPGQPPKLLIYWASTRES GVPDRFSGSGSGTDFTLTISLQAEDVAVYY CQYYSTPYTFGQGTKVEIK (SEQ ID NO: 413)
44	Antibody 50	QVQLVQSGAEVKKPGASVKVSCASGYTFT GYIMHWVRQAPGQGLEWMGTINPSGGST SYAQKFQGRVTMTTRDTSTSTVYMELSSLRSE DTAVYYCVKNGYDYLWGQGLTVTVSS (SEQ ID NO: 367)	DIQMTQSPSSLSASVGDRTITCRASQSISS WLAWYQQKPGKAPKLLIYDTSNLQGGVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQYDS FPWTFGQGTKVEIK (SEQ ID NO: 414)
45	Antibody 51, 80, 96, 108	QVQLVQSGAEVKKPGASVKVSCASGYTFT RYDINWVRQAPGQGLEWMGWMNPNSG NTGYAQLQGRVTMTTRDTSTSTVYMELSSL RSEDTAVYYCARERVGYSSTSLHPLDYWG QGTLTVTVSS (SEQ ID NO: 368)	DIQMTQSPSSLSASVGDRTITCRASQGIRN DLGWYQQKPGKAPKLLIYSASNLQSGVPSRF SGSGSGTDFTLTISLQPEDFATYYCQQSYDV PLTFGGGKVEIK (SEQ ID NO: 415)
46	Antibody 52, 81	QVQLVQSGAEVKKPGASVKVSCASGYTFT SYDINWVRQAPGQGLEWMGWISGYNGNT NYAQKFQGRVTMTTRDTSTSTVYMELSSLR SEDTAVYYCARFDWLLLLDYWGQGLTVTVS S (SEQ ID NO: 369)	DIQMTQSPSSLSASVGDRTITCRASQSISS WLAWYQQKPGKAPKLLIYDATTLESQVPSR FSGSGSGTDFTLTISLQPEDFATYYCQQYDS YPWTFGQGTKLEIK (SEQ ID NO: 416)
47	Antibody 53, 82, 97, 109	QVQLVQSGAEVKKPGASVKVSCASGHTFN NNYIHWVRQAPGQGLEWMGIINPSGGSTS YAQKFQGRVTMTTRDTSTSTVYMELSSLRSE DTAVYYCARQIQDYGYYYGMDVWGQGT TVTVSS (SEQ ID NO: 370)	EIVMTQSPATLSVSPGERATLSCRASQSVSKY LAWYQQKPGQAPRLLIYASARAAGIPARFS GSGSGTEFTLTISLQSEDFAVYYCQQYYSSP PTFGQGTKVEIK (SEQ ID NO: 417)

[00141] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 324 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 371, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00142] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 325 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 372, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00143] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 326 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 373, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00144] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 327 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 374, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00145] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 328 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%,

80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 375, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00146] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 329 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 376, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00147] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 330 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 377, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00148] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 331 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 378, or an

amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00149] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 332 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 379, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00150] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 333 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 380, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00151] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 334 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 381, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00152] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 335 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 382, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00153] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 336 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 383, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00154] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 337 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 384, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00155] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 338 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%,

80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 385, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00156] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 339 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 386, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00157] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 340 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 387, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00158] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 341 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 388, or an

amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00159] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 342 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 389, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00160] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 343 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 390, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00161] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 344 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 391, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00162] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 345 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 392, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00163] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 346 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 393, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00164] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 347 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 394, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00165] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 348 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%,

80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 395, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00166] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 349 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 396, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00167] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 350 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 397, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00168] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 351 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 398, or an

amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00169] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 352 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 399, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00170] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 353 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 400, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00171] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 354 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 401, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00172] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 355 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 402, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00173] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 356 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 403, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00174] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 357 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 404, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00175] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 358 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%,

80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 405, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00176] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 359 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 406, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00177] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 360 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 407, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00178] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 361 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 408, or an

amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00179] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 362 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 409, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00180] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 363 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 410, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00181] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 364 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 411, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00182] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 365 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 412, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00183] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 366 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 413, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00184] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 367 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 414, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00185] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 368 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%,

80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 415, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00186] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 369 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 416, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00187] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain (VH) of the antibody comprises the amino acid sequence of SEQ ID NO: 370 or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or wherein the light chain variable domain (VL) of the antibody comprises the amino acid sequence of SEQ ID NO: 417, or an amino acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00188] By way of explanation, making reference to Tables 1 and 2, forty seven (47) combinations of unique antibody sequences are provided (CDR sequences in Table 1; VH/VL sequences in Table 2). By way of example, and guidance to read the tables: Antibodies 1, 3, 4, 7, and 110 share the same combination of CDR sequences and also share the same combination of VH/VL sequences, but differ in some other aspect, e.g. may have different Fc regions. Likewise, it is noted that Antibodies 2, 5, 6, 8, and 111 share the same combination of CDR

sequences and also share the same combination of VH/VL sequences but differ in some other aspect, e.g. may have different Fc regions.

[00189] Antibodies 1 and 2 comprise a rat IgG2b Fc.

[00190] Antibodies 3, 5, and 83-97 comprise a human IgG1 Fc of the disclosure.

[00191] Antibodies 4, 6, and 54-82 comprise a human IgG1 Fc of the disclosure comprising certain substitutions that lead to increased effector function, exhibiting increased affinity to Fc γ R.

[00192] Antibodies 7 and 8 comprise a human IgG4 Fc of the disclosure comprising certain substitutions that lead to a decrease in the dynamic process of Fab-arm exchange, and further reduced effector function.

[00193] Antibodies 98-111 comprise a human IgG1 Fc of the disclosure comprising certain substitutions that lead to reduced effector function, leading to the silencing of the Fc (e.g. can comprise the LALA-PG substitutions).

iii. SIRP γ Antibody-Mediated Cell Depletion

[00194] The Fc-containing SIRP γ antibodies provided herein are capable of targeting and preferentially depleting SIRP γ -expressing cells. In some embodiments, the antibodies preferentially deplete activated (interchangeably referred to herein as stimulated) cells as a result of an increase in surface SIRP γ expression compared to naïve unactivated (unstimulated) cells.

[00195] In some embodiments, the SIRP γ antibodies provided herein are capable of inducing the depletion of T-cells, B-cells, or NK-cells. In some embodiments, the cells are in an activated state.

[00196] Without being held to any theory or mechanism, it is envisioned that the CDR-containing antigen-binding domain of the SIRP γ antibody confers binding to the SIRP γ -expressing cell, and that the Fc portion of the antibody induces depletion and Fc-mediated effector function. Accordingly, in some embodiments, the cell depletion involves antibody dependent cellular cytotoxicity (ADCC). In some embodiments, the cell depletion involves

antibody dependent cellular phagocytosis (ADCP). In some embodiments, the cell depletion involves complement-dependent cytotoxicity (CDC). In some embodiments, the cell depletion involves one, two, or all three of ADCC, ADCP, and CDC. An Fc-containing SIRP γ antibody of the disclosure includes a full-length antibody, or an antibody fragment that is linked to a Fc domain, e.g. a VH-VL-Fc single chain antibody.

[00197] In some embodiments, there is differential depletion of T-cell subsets, possibly driven by differential expression of specific isoforms on different T-cell subsets. T-cell subsets include cells that are in different cell states, e.g. stimulated, exhausted; subsets also include T-cells that express different subsets of markers. Accordingly, in some embodiments, the SIRP γ antibodies provided herein are capable of inducing the preferential depletion of specific T-cell subsets expressing specific SIRP γ isoforms.

B. Generation of SIRP γ Antibodies

[00198] Production of the antibodies provided herein may be by use of any method known to those of ordinary skill in the art. In some embodiments, the antibodies are produced by hybridomas. In some embodiments, the antibodies are encoded by a nucleic acid and are expressed, purified, and isolated.

[00199] The terms polynucleotide and nucleic acid are used interchangeably herein, and refer to a polymeric form of nucleotides of any length, which may be ribonucleotides or deoxyribonucleotides. The terms include, but are not limited to, single-, double-, or multi-stranded DNA or RNA, genomic DNA, cDNA, DNA-RNA hybrids, or a polymer comprising purine and pyrimidine bases or other natural, chemically or biochemically modified, non-natural, or derivative nucleotide bases. The terms encompass nucleic acids containing known analogues of natural nucleotides and having similar binding properties, and are metabolized in a manner similar to naturally-occurring nucleotides, unless specifically limited or stated otherwise.

[00200] Accordingly, provided herein are nucleic acids encoding any of the antibodies disclosed herein, vectors comprising any of the nucleic acids encoding such antibodies, and host cells comprising any such vectors. Also provided herein are exemplary nucleic acid sequences encoding for the variable heavy chains and variable light chains of the SIRP γ antibodies disclosed herein.

[00201] Table 3 provides exemplary nucleic acid sequences for the SIRP γ antibodies of the disclosure.

Table 3: Exemplary Variable Heavy Chain and Variable Light Chain Nucleic Acid Sequence of SIRP γ Antibodies

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
Antibody 1,3,4,7,110	CAGGTGCAGCTGGTGGAGTCTGGGGGAGGCGT GGTCCAGCCTGGGAGGTCCCTGAGACTCTCTGT GCAGCGTCTGGATTACCTTCAGTAAGTATGGCA TGCACTGGGTCCGCCAGGCTCCAGGCAAGGGGC TGGAGTGGGTGGCATTATATGGTATGATGGAA GTAATAAAAACTATGCAGACTCCGTGAAGGGCC GATTCACCATCTCCAGAGACAATCCACGAACAC GCTGTATCTGCAAATGAACAGCCTGAGAGCCGA GGACACGGCTGTGTATTACTGTGCGAGAGAGGA GCAGTGGCTTGACTACTGGGGCCAGGGAACCT GGTCACCGTCTCTCA (SEQ ID NO: 418)	GAAATAGTGATGACGCAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCTG CAGGGCCAGTCAGAGTGTTAGCAGCAACTTAGC CTGGTACCAGCAGAAACCTGGCCAGGCTCCCAG GCTCCTCATCTATGGTGCATCCACCAGGGCCACT GGTATCCCAGCCAGGTTCACTGGCAGTGGGTCT GGGACAGAGTTCACTCTCACCATCAGCAGCCTGC AGTCTGAAGATTTTGAGTTTATTACTGTGAGCA GTATAATAACTGGCCTCTCACTTTGCGCGGAGGG ACCAAGGTGGAGATCAAA (SEQ ID NO: 465)
Antibody 2,5,6,8,111	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCTCTGC AAGGCTTCTGGATACACCTTCACCGCTATCATA TACTACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAACCCTAACAGTG GTGGCACAAGTATGCACAGAAGTTTCAGGGCA GGGTCAACATGACCAGGGACACGTCCATCAACA CGGCCTACATGGAGCTGAACAGGCTGAGATCTG ACGACACGGCCGTGTTTACTGTGCGAGAGAGA GAGTAGGATATTGTAGTCGTCCAGCTGCCTTGA TGATCTTAATATCTGGGGCCAGGGGACAATGGTC ACCGTCTCTTCA (SEQ ID NO: 419)	GACATCCAGATGACCCAGTCTCCTTCCACCCTGTC TGCATCTGTTGGAGACAGAGTCAACCATCACTTGC CGGGCCAGTCAGAGTATTAGTAGCTGGTTGGCC TGGTATCAGCAGAAACAGGGGAAAGCCCTAAG CTCCTGATCTATAAGGCGTCTAGTTTAGAACTG GGGTCCCATCAAGGTTCAAGCGGAGTGGATCTG GGACAGAATCACTCTCACCATCAGCAGCCTGCA GCCTGATGATTTTGCACCTATTACTGCCAACAGT ATGATAGTTACTACACTTTTGGCCAGGGGACCAA GCTGGAGATCAAA (SEQ ID NO: 466)
Antibody 9,54,83,98	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTCTGC AAGGCATCTGGATACAGCTTCTGACTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGTCCCCTAATAGTG GTAACACAGGCTACGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGACAAC GCGAGGAATACGGCCACTACTACTACGGGATGG ATGTCTGGGGCCAAGGGACAATGGTCACCGTCT CTTCA (SEQ ID NO: 420)	GAAATAGTGATGACGCAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCTG CAGGGCCAGTCAGAGTCTGGGCAGCACTTATTTA GCCTGGTACCAGCAGAAACCTGGCCAGGCTCCC AGGCTCCTCATCTATGGTGCATCCACCAGGGCCA CTGGTATCCCAGCCAGGTTCACTGGCAGTGGGT CTGGGACAGAGTTCACTCTCACCATCAGCAGCCT GCAGTCTGAAGATTTTGAGTTTATTACTGTGAG CAGTATTATAGTCCCTCCACGTTCCGGCCAAG GGACCAAGGTGGAAATCAAA (SEQ ID NO: 467)
Antibody 10	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTCTGC AAGGCATCTGGAGGGACCTTCTCTAACTACGACA TCTCGTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATGATCGATCCTAGTGGTG GCAGCACAAGCTACGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGACCTTA	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCAACCATCACTTGC CAGGCGAGTCAGGACATTCACAATATTTAAATT GGTATCAGCAGAAACAGGGGAAAGCCCTAAGC TCCTGATCTACGATGCATCAATTTGGAAACAGG GGTCCCATCAAGGTTCACTGGAAGTGGATCTGG GACAGATTTTACTCTCACCATCAGCAGCCTGCAG CCTGAAGATTTTGCAACATATTACTGTCAACAGA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	TTCAAGCGGGTGGTACTACTTTGACTACTGGGGC CAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 421)	GTTATAATACCCCTCCACCTTCGGCCAAGGGAC ACGACTGGAGATTA (SEQ ID NO: 468)
Antibody 11	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTCACCAGTTATGATA TCAACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCCAACAGTG GTAACACAGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACCTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAAAGGCG CTGTGGCCGGAATTACTACTATTACGGAATGGA CGTGTGGGGCCAAGGGACCGTACCGTCTCCTCA (SEQ ID NO: 422)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGCGCAGTCAGACCATTAAATACTATTTAAATT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTACGATGCATCCAATTTGGAAACAGG GGTCCCATCAAGGTTCAAGTGGAGTGGATCTGG GACAGATTTTACTCTGACCATCAGCAGCCTGCAG CCTGAAGATTTTGAACATATTACTGTCAACAGG CTAATAGTTTCCCTCTCACTTCGGCCAGGGGACC AAGGTGGAGATCAAA (SEQ ID NO: 469)
Antibody 12	CAGGTTCACTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTGGCACCTTTGGCAGCTATGGTA TCAACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAGCGCCTACAATG GTAACACAACTATGCACAGAAGTCCAGGGCA GAGTCACCATGACCCGGGACACATCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AAGACACGGCCGTGTATTACTGTGCGAGAGATG GAATCGATTACGGCGGGAACTCTGGATATGACT ACTGGGGCCAAGGGACCGTGGTACCGTCTCCTCA (SEQ ID NO: 423)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAACATTAGGAACTATTTAAATT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGCAAGGAGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGAACCTTACTACTGTCAACAGA GTTACAACGGGCCTTACACGTTCCGGCCAAGGGA CCAAGGTGGAAATCAAA (SEQ ID NO: 470)
Antibody 13,55	GAGGTGCAGCTGCTCGAGTCTGGGGGAGGCTTG GTACAGCCTGGAGGGTCCCTGAGACTCTCCTGTG CAGCCTCTGGATTCACCTTCAGTAACAGTGACAT GAACTGGGTCCGCCAGGCTCCAGGGAAGGGGCT GGAGTGGGTTTCATACATTAGTAGTAGTGTAAT ACTATATACTACGCAGACTCTGTGAAGGGCCGAT TCACCATCTCCAGAGACAACTCAAAGAACACGCT GTATCTGCAAAATGAACAGCCTGAGAGCCGAGGA CACGGCTGTTTATTACTGTGCGAGAAGCAACTGG AATTACCCTCTTGACTACTACTACATGGACGTCTG GGGCAAAGGGACCGTACCGTCTCCTCA (SEQ ID NO: 424)	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTACCCCTGGAGAGCCGGCCTCCATCTCCTGC AGGTCTAGTCAGAGCCTCCTGCACTTAACGGGT ACAACCTATTTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATGCAGCGTCT AGTCTGCAGTCCGGGGTCCCTGACAGGTTCACT GGCAGTGGATCAGGCACAGATTTTACACTGAAA ATCAGCAGAGTGGAGGCTGAGGATGTTGGGGTT TATTACTGCATGCAAGGGACCCACTGGCCTCCAA CGTTCGGCCAAGGGACCAAGGTGGAAATCAAA (SEQ ID NO: 471)
Antibody 14,56	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTGC AAGGCATCTGGATACACCTTCACCAGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGGTAGATCCCAATAACG GTGACACAGGATACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGATA ACTGGGGCTCCCTGGATGTCTGGGGCAAAGGGA CAACCGTACCGTCTCCTCA (SEQ ID NO: 425)	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTACCCCTGGAGAGCCGGCCTCCATCTCCTGC AGGTCTAGTCAGAGCCTCCTGCATTGGAATGGGT ACAACCTATTTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATGCAGCTTCTA CCCTCCAGTCCGGGGTCCCTGACAGGTTCACTGG CAGTGGATCAGGCACAGATTTTACACTGAAAATC AGCAGAGTGGAGGCTGAGGATGTTGGGGTTTAT TACTGCATGCAAGGTCTACAACTTTATACAGTTT TGGCCAGGGGACCAAGCTGGAGATCAAA (SEQ ID NO: 472)

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
Antibody 15	CAGGTTGAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACTCCTTTACCAGCTATGGTAT CAGCTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATCAGCCGTACAATGG TAACACAACTATGCACAGAAGCTCCAGGGCAG AGTCACCATGACCAGAGACACATCCACGAGCAC AGTTTACATGGAGCTGTCCAGCCTGAGATCTGAA GACACGGCCGTGTATTACTGTGCGAGAGAGGCT TACGGCGACTACGGCGACTACTTTGACTACTGGG GCCAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 426)	GACATCCAGATGACCCAGTCTCCATCTTCTCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGGGTGTGGGCGATAGAAGTGC CTGGTATCAGCAGAAACCAGGGAAAAGCCCCTAA GCTCCTGATCTATGACGCATCCAACCTGGAGACA GGGTCCCATCAAGGTTTCAGCGGCAGTGGATCT GGGACAGATTTCACTCTCACTATCAGCAGCCTGC AGCCTGAAGATTTTGAACCTTACTATTGTCAACA GGCTGATACTTTCCCTTACACTTTTGCCAGGGG ACCAAGCTGGAGATCAAA (SEQ ID NO: 473)
Antibody 16,57,84,99	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTACCAGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAACCCAAACAGTG GTAACGCCGGGTTTGACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGGAC CCGTCTATTCTACGGTCCGTTTACTACTGGGG CCAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 427)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGGGCATTAGCACTTATTAGCCT GGTATCAGCAGAAACCAGGGAAAAGCCCCTAAGC TCCTGATCTATGCTGCATCCACATTGCAAAGTGG GGTCCCATCAAGGTTTCAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGAACCTTACTACTGTCAACAGA GTCACAGTGCACCTATCAGGTTTCGGCCAAGGGAC CAAGGTGGAAATCAAA (SEQ ID NO: 474)
Antibody 17	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTACCAGGAATTATG TCCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGACGGATCAACCCCAATAGTG GTGGGACAAACACCGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGACTGG GCGACGTGGCCGTGCTGCGTCCTTTGACTACTG GGGCAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 428)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAGCATTAGCAGCTATTTAAATT GGTATCAGCAGAAACCAGGGAAAAGCCCCTAAGC TCCTGATCTATGACGCATCCAGTTTGGAGAGTGG GGTCCCATCAAGGTTTCAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGAACCTTACTACTGTCAACAGG CAAACAGTTTCCCTTTAACTTTTCGGCCCTGGGACC AAAGTGGATATCAAA (SEQ ID NO: 475)
Antibody 18	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTACCGGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCAAATAGTG GTAATACAGGTTACGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGGAT CTGGCTACGATGCTGGGGTGTGTTGACTACTGGG	GACATCCAGATGACCCAGTCTCCATCTTCTCTTTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGGGTATTGGAAATGACTTAGCC TGGTATCAGCAGAAACCAGGGAAAAGCCCCTAAG CTCCTGATCTATGACGCAAAGGATTTGACCCCG GGGTCCCATCAAGGTTTCAGCGGCAGTGGATCTG GGACAGATTTCACTCTCACTATCAGCAGCCTGCA GCCTGAAGATTTTGAACCTTACTATTGTCAACAG AGCTACAGTTTCCCTAGGACCTTCGGCCAAGGGA CACGACTGGAGATTAAT (SEQ ID NO: 476)

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	GCCAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 429)	
Antibody 19,58	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCGCATACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATAATCAACCCTAGTGGTG GCAGCACAAGCTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGATA GCGGGTGGTACGCACCCGGATACTATTATGGGA TGGATGTCTGGGGCCAAGGGACAACAGTCACCG TCTCTTCA (SEQ ID NO: 430)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTGAGAGCATTAGCCATTGGTTAGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCCTAAG CTCCTGATCTATGGTGCATCCACTTTGCAAAGTG GGGTCCCATCAAGGTTCACTGGCAGTGGATCTG GGACAGATTTCACTCTCACCATCAGCAGTCTGCA ACCTGAAGATTTGCAACTTACTACTGTCAACAG AGTTACACCCCTCCCCTCACTTTCGGCGGAGGGGA CCAAGGTGGAGATCAAA (SEQ ID NO: 477)
Antibody 20,59,85, 100	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTCACCAAGTTATGATA TCAACTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCCAACAGTG GTAACACAGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACCTCCACAAGCA CAGTTTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAGAGAGTC ATACGCATATTGCTCAAGTACATCCTGTTATGATG CTTTTGATATCTGGGGCCAAGGGACAATGGTCAC CGTCTCTTCA (SEQ ID NO: 431)	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CAAGTCCAGCCAGAGTCTCCTCTACAGCTCTAAT AACAAGAATACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTACTGGGC ATCTATCCGGGAATCCGGGGTCCCTGACCGATTG AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTGAGCAATATCTCAGTCTCCACTC ACTTTCGGCCAGGGGACCAAGGTGGAGATCAAA (SEQ ID NO: 478)
Antibody 21,60,86, 101	GAGGTGCAGCTGTTGGAGTCTGGGGGAGGCTTG GTACAGCCTGGGGGGTCCCTGAGACTCTCCTGTG CAGCCTCTGGATTACCTTGGGGAGCTATTGGAT GCATTGGGTCCGCCAGGCTCCAGGGAAGGGGCT GGAGTGGGTCTCATTAAATAGTTGGGATGGTGG CTCTACATACTACGCAGACTCCGTGAAGGGCCGG TTCACCATCTCCAGAGACAATTCCAAGAACACGC TGTATCTGCAAATGAACAGCCTGAGAGCCGAGG ACACGGCCGTATATTACTGTGCGAAAGGCCCATG GGTCGGTTACTCAGGCTACGATCTGAATTACTAC TACTACGGCATGGACGTTTGGGGCCAAGGGACC ACAGTCACCGTCTCCTCA (SEQ ID NO: 432)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGGATATTAGACGAGCATTAGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCCTAAG CTGCTGATCTATGCTGCATCCAGTTTGCAAAGTG GGGTCCCATCAAGGTTCACTGGCAGTGGATCTG GGACAGATTTCACTCTCACAATCAGCAGCCTGCA GCCTGAAGATTTGCAACTTATTACTGTCTACAGC ATAATAGTTACCCTCCCCTTTTGGCCAGGGGAC CAAGCTGGAGATCAAA (SEQ ID NO: 479)
Antibody 22,61,87	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCAAGCCACGACA TTAATTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATATCAAACCCTAGTGGAG GTAGCACATACTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTTCATCCCG	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTCACCCCTGGAGAGCCGGCCTCCATCTCCTGC AGGTCTAGTCAGAGCCTCCTCCACAGTAATGGAT ACAATAATTTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATTTGGGTTCTA GTCGGGCCTCCGGGGTCCCTGACAGGTTCACTG GCAGTGGATCAGGCACAGATTTTACTGAAAAT CAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTA TTACTGCATGCAAGCTCTACAACTCCTACCTTCG

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	ACGGTACTGGAATGGCGCCTTTGACTACTGGGG CCAAGGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 433)	GCCAAGGGACACGACTGGAGATTAAA (SEQ ID NO: 480)
Antibody 23,62	CAGGTTGAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTGGGACCTTTAGTAACTATGATA TCAATTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAGCGCGTACAATG GTAACACAACTATGCACAGAAGCTCCAGGGCA GAGTCACCATGACCCGGGACACATCCACGAGCA CAGTGTACATGGAGCTGAGCAGCCTGAGATCTG AAGACACGGCCGTGTATTACTGTGCGGCAGAAG CCTACGGAGATTACTCACTGGACCCTGGGGCCA GGGAACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 434)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CAGGCAAGTCAGGGTATTAGCAGCTATTTAAATT GGTATCAGCAGAAACCAGGGAAAGCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGCAAAATGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTGCAACTTACTACTGTCAACAGA GTTACAGTACCCCTATCACCTTCGGCCAAGGGAC ACGACTGGAGATTAAA (SEQ ID NO: 481)
Antibody 24,63	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTCCTGC AAGGCATCTGGATACACCTTACCCGGATACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATAATCAACCCTAGTGGTG GCAGCACAACTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGGCC CGATTGGCTACGGTATGGACGTGTGGGGCCAAG GGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 435)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGGGCATTGGCAATGATTTAGGC TGGTATCAGCAGAAACCAGGGAAAGCCCTAAG CTTCTGATCTATGCTGCATCCAAGTTGGAACGG GGGTCCCATCAAGGTTCAAGCGGCAGTGGATCTG GGACAGATTTCACTCTCACAATCAGCAGCCTGCA GCCTGAAGATTTGCAACTTATTACTGTCTACAGC ATCATAGTTACCCTTTTACTTTTGGCCAGGGGACC AAGCTGGAGATCAAA (SEQ ID NO: 482)
Antibody 25	GAGGTGCAGCTGCTGGAGTCTGGGGGAGGCTTG GTCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTG CAGCCTCTGGATTCACCGTCGGCAGCTGGTACAT GAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCT GGAGTGGGTGCTCATGTCTCGGACGACGGTAG CAATGAATTTTACGCAGACTCCGTGAAGGGCCGA TTCACCATCTCCAGAGACAATTCCAAGAACACGC TGTATCTTCAAATGAACAGCCTGAGAGCTGAGGA CACGGCTGTGTATTACTGTGCGAGAAGCCCCGGC TATTGTAGCTCCACCAGCTGTTACCGATACTATG GTATGGACGTCTGGGGCCAAGGGACCACAGTCA CCGTCTCCTCA (SEQ ID NO: 436)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGACCAGTCAGAGCATTGGCACCTATTTAAATT GGTATCAGCAGAAACCAGGGAAAGCCCTAAGC TCCTGATCTATGACGCATCCAATTTGCCGACTGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTGCAACTTACTACTGTCAAACTA TAACAGTGCTCTGTTCCGGCCCTGGGACCAAGTG GATATCAAA (SEQ ID NO: 483)
Antibody 26,64	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTCCTGC AAGGCATCTGGATACACCTTACCCAGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGACGTATCAACCCGAATAGTG GTGGAACAAAGTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG	GACATCCAGATGACCCAGTCTCCATCTTCTCTCTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGTCTGTGGATACCTGGTTAGCCT GGTATCAGCAGAAACCAGGGAAAGCCCTAAGC TCCTGATCTATGAAGCATCCACATTGGAAAGTGG GGTCCCATCAAGGTTCAAGCGGCAGTGGATCTGG GACAGATTTCACTCTCACTATCAGCAGCCTGCAG CCTGAAGATTTGCAACTTACTATTGTCAACAGG

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	AGGACACGGCCGTGTATTACTGTGCTAGACTAG GCTCTGCCTACTTCGATCTCTGGGGCCGTGGCAC CCTGGTCACTGTCTCCTCA (SEQ ID NO: 437)	CTAACAGTTTCCCTATCACCTTCGGCCAAGGGAC ACGACTGGAGATTA (SEQ ID NO: 484)
Antibody 27,65,88, 102	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTCACCAGTCATGATA TCAACTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGAACGCTAACAACG GTAACGCTGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGATACCTCCACCAGCAC AGTTTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAAGGACTT GTCTCCATCTTCTCCTGGTCCACCTACTATTACTA TTACGGGATGGATGTCTGGGGCCAAGGGACAAT GGTCACCGTCTCTTCA (SEQ ID NO: 438)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAGCATTAGCAATCTCTTAGCGT GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGAAAGTGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTGCAACTTACTACTGTCAACAGA GTTACAGTACCCCTTACACTTTTGGCCAGGGGAC CAAGCTGGAGATCAAA (SEQ ID NO: 485)
Antibody 28	CAGGTTCACTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACACCTTTACCAGCTATAATAT CCACTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATCAGCGCTACAATGG TAACACAACTATGCACAGAAGCTCCAGGGCAG AGTCACCATGACCAGAGACACATCCACGAGCAC AGTCTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGCTGGATGG AGGGCAGCTAGGCGTGGCTTTGATATCTGGGG CCAAGGGACAATGGTCACCGTCTCTTCA (SEQ ID NO: 439)	GACATCCAGATGACCCAGTCTCCATCTTCTCTTTC TGATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCAGTCAAGGATATTAGCAATTTGGTAGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCTAAG CTCCTGATCTATGATGCATCCAATTTGGACGCCG GGGTCCCATCAAGGTTCAAGGCGCAGTGGATCTG GGACAGATTTCACTCTCACTATCAGCAGCCTGCA GCCTGAAGATTTGCAACTTACTATTGTCAACAG GCTAACAGTTTACCTCTCACTTTTGGCGGAGGGGA CCAAGGTGGAGATCAAA (SEQ ID NO: 486)
Antibody 29,66,89, 103	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTCCTGC AAGGCATCTGGAGGAACCTTCAGCAGCTACGCT ATCAGCTGGGTGCGACAGGCCCTGGACAAGGG CTTGAGTGGATGGGAATAATCAACCCTAGTTCCA GCAGCACAGGCTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGCCG GTTACTACGACTCTTCGGGCTATTACTATTCCCCT TACTATGGCATGGACGTGTGGGGCCAAGGGACC ACAGTCACCGTCTCCTCA (SEQ ID NO: 440)	GAAATAGTGATGACGAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCCTG CAGGGCCAGTCAGAGTATATCTGGGAGCTATTTA GCCTGGTACCAGCAGAAACCTGGCCAGGCTCCC AGGCTCCTCATCTATGGTGCATCCACCAGGGCCA CTGGTATCCAGCCAGGTTCAAGTGGCAGTGGGT CTGGGACAGAGTTCACTCTCACCATCAGCAGCCT GCAGTCTGAAGATTTTGCAGTTTATTACTGTGAG CAGTATGGGAGCTTTCCTTCACTTTTGGGCCCTG GGACCAAAGTGGATATCAAA (SEQ ID NO: 487)
Antibody 30,67	CAGGTTCACTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACACCTTTACCAACTTCGACAT CAATTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATCAGCGCTACAATGG TCATACAACTATGCACAGAACCTCCAGGGCAGA GTCACCATGACCAGGGACACATCCACGAGCACA GTGTACATGGAGCTGTCTAGCCTGAGATCTGAAG	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGGATATTCTGAATGATTAGCCT GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGC TCCTGATCTATGACGCATCCAATTTGGAGACGGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTGCAACTTACTACTGTCAACAGA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	ACACGGCCGTGTATTACTGTGCGCAGGAAGCCG CGGCTGGGTACTTTGACTACTGGGGCCAAGGGA CCCTGGTCACCGTCTCTCA (SEQ ID NO: 441)	GTTACGGTACCCCTTACACTTTTGGCCAGGGGAC CAAGCTGGAGATCAAA (SEQ ID NO: 488)
Antibody 31	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCTGC AAGGCTTCTGGAGGAACCTTCCGCAATTATGCCA TCAGCTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCTAACAGTG GTAACACAGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGATACCTCCACAAGCAC AGTGTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAGAGAGAG CGTGCTCAAAGGAGGTATGGATGTCTGGGGCCA AGGGACAACGGTCACCGTCTCTCA (SEQ ID NO: 442)	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CCGGTCCAGCCAGAGTCTCTTTCACAGCAGCACC AACGCCAACAACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTTACTGGGC ATCTACCCGGGAATCCGGGGTCCCTGACCGATTG AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTCAGCAATATTATATTACTCTCTG ACCTTCGGCCAAGGGACAGACTGGAGATTAAA (SEQ ID NO: 489)
Antibody 32,68	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTGC AAGGCATCTGGATACACCTTACCAGCTACTATA TGTATTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAACCCAAATAGTG GTAACACAGGATACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAAGGATA GGCGCCGTGGAGTGGGCCTAGCCGCTGCCGGCA CCAGCGCTTTTGATATCTGGGGCCAAGGGACAAT GGTCACCGTCTCTCA (SEQ ID NO: 443)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAGCATTAGCAACTGGTTAGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCTAAG CTCCTGATCTATGCTGCATCCAGTTTGCAAAGTG GGGTCCCATCAAGGTTCACTGGCAGTGGATCTG GGACAGATTTCACTCTCACCATCAGCAGTCTGCA ACCTGAAGATTTTGCAACTTACTACTGTCAACAG AGTTACAGTACCCCTTACACTTTTGGCCAGGGGA CCAAGCTGGAGATCAAA (SEQ ID NO: 490)
Antibody 33,69,90 104	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTGC AAGGCATCTGGATACACCTTACCAGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCTAACTCTG ACAACACAGGTTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGTGG GGGTCGGTTATGGCTACTACTACTACGGAATGGA CGTGTGGGGCCAAGGGACCACCGTCACCGTCTC CTCA (SEQ ID NO: 444)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAGGTGAGAGCATTGGCGACTATTTAAATT GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGCAAAGTGG GGTCCCATCAAGGTTCACTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGCAACTTACTACTGTCAACAGA GTTACAGTACCCCTTGGACGTTCCGGCCAAGGGAC CAAGGTGGAAATCAAA (SEQ ID NO: 491)
Antibody 34,70,91	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCTGC AAGGCATCTGGATACACCTTCTCAAATTACTATAT GCACTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATGAACCCCAATAGTGG TAACACAGGGTACGCACAGAAGTTCAGGGCAG AGTCACCATGACCAGGGACACGTCCACGAGCAC AGTCTACATGGAGCTGAGCAGCCTGAGATCTGA	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTCACCCCTGGAGAGCCGGCCTCCATCTCTCTGC AGGTCTAGTCAGAGCCTCCTGCACAGCAATGGGT ACAATAATTTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATTTGGCGTCTA CTCGGGCCCTGGGGTCCCTGACAGGTTCACTG GCAGTGGATCAGGCACAGATTTTACTACTGAAAAT CAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	GGACACGGCCGTGTATTACTGTGCTAGAGCCTCA ATGTACTCTTCAAGTGGGTTTGACTACTGGGGCC AAGGGACCCTGGTCACCGTCTCTCA (SEQ ID NO: 445)	TTACTGCATGCAAGGATCCCATTGGCCTCTAGTT TTGGCCAGGGGACCCGGCTGGAGATCAAA (SEQ ID NO: 492)
Antibody 35,71	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCAGCTACTATA TCCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAACGATCAACCCTAGTGGTG GCAGCACAAGCTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGAGA CTAGCCGGTGGCTCAGAGATTATTATTACGGAAT GGATGTCTGGGGCCAAGGGACAACGTGTACCGT CTCTCA (SEQ ID NO: 446)	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTCACCCCTGGAGAGCCGGCCTCCATCTCCTGC AGGTCTAGTCAGAGCCTCCTACACTCTAATGGTT ACAACTATTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATGACGCCTCTA GCCTGGAGTCCGGGGTCCCTGACAGGTTCACTG GCAGTGGATCAGGCACAGATTTTACACTGAAAAT CAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTA TTACTGCATGCAAGGGACTCACTGGCCTCTCACT TTCGGCGGAGGGACCAAGGTGGAGATCAAA (SEQ ID NO: 493)
Antibody 36,72	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCACAATTATC TACACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATAATCGAGACGAGTGGTG GCAGCACAAGCTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAAGCTT TGGTGGATATTCGTATGACGATGCTTTTGATATC TGGGGCCAAGGGACAACGGTCACCGTCTCTCA (SEQ ID NO: 447)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CAGGCAAGTCAGGGTATTAGCAATTATTTAAATT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGAAAGTGG GGTCCCATCAAGGTTCACTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGCACTTACTACTGTCAACAGA GTTACAGTAGCCCTTACACGTTTCGGCCAAGGGAC CAAGGTGGAAATCAAA (SEQ ID NO: 494)
Antibody 37	CAGGTTTCAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACACCCTCAATAATTATGATAT CAATTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATCAGCGGTACAATGG TAACACAACTATGCACAGAAGCTCCAGGGCAG AGTCACCATGACCCGCGACACATCCACGAGCACA GTGTACATGGAGCTGTCGAGCCTGAGATCTGAG GACACGGCCGTGTATTACTGTGCGAGAGTGGGC TCCTCTTGGGAAGAAAACGACCAGTGGGGCCAA GGGACCCTGGTCACCGTCTCTCA (SEQ ID NO: 448)	GACATCCAGATGACCCAGTCTCCATCTTCTCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGTCCATTAGCCGGTGGTTAGCC TGGTATCAGCAGAAACCAGGGAAAAGCCCTAAG CTCCTGATCTATGCTGCATCCAGTTTGGAGAGTG GGGTCCCATCAAGGTTCACTGGCAGTGGATCTG GGACAGATTTCACTCTCACTATCAGCAGCCTGCA GCCTGAAGATTTTGCACTTACTATTGTCAACAG ACACACAGTTTCCCTCTCACTTTCGGCGGAGGGGA CCAAGGTGGAGATCAAA (SEQ ID NO: 495)
Antibody 38,73,92, 105	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGAGGCACCTTCTCGAGTTATGATA TCAACTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCCAACAGTG GTAACACAGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACCTCCACAAGCA	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CCGATCCAGCCAGAGTGTTTTGTACTIONTCAAAAC AATAAGAACTACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTTACTGGGC ATCTACCCGGGAATCCGGGGTCCCTGACCGATTC AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	CAGTGTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGAGATC TCACGCTGTATTGTAGCAGTACCAGCTGTCTTGA CGCCTTTGACTACTGGGGCCAAGGGACCCTGGTC ACCGTCTCCTCA (SEQ ID NO: 449)	CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTCAGCAATATTATAGTACTCCTCCA ACTTTTGGCCAGGGGACCAAGCTGGAGATCAAA (SEQ ID NO: 496)
Antibody 39,74	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGAGGAACCTTCTTAATTATGGTT TTAGCTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGTCACCTTCTAGTG GTAACACAGGCTATGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGATACCTCCACAAGCAC AGTGTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAGAGAACG CTCCGGTTCCTACTTTGACTACTGGGGCCAAGGG ACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 450)	GAAATAGTGATGACGCAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCCTG CAGGGCCAGTCAGAGTGTTAGCAGCTATTTAGCC TGGTACCAGCAGAAAACCTGGCCAGGCTCCCAGG CTCCTCATCTATGGTACCTCCACCAGGGCCACTG GTATCCAGCCAGGTTCACTGGCAGTGGGTCTG GGACAGAGTTCACCTCTACCATCAGCAGCCTGCA GTCTGAAGATTTGCAGTTTATTACTGTCAGCAG TATGGCTCGTACCTTTCACCTTCGGCCAAGGGA CACGACTGGAGATTA (SEQ ID NO: 497)
Antibody 40	CAGGTCCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGTCTCGGTGAAGGTCTCCTGC AAGGCTTCTGGAGGCACCTTCAGCAGCTATGCTA TCAGCTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGGTGGGAAGGATCCATCCACGCGACG GTAGCACAGACTACGCACAGAAGTTCCAGGGCA GAGTCACGATTACCGCGGACGAATCCACGAGCA CAGCCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGAGTTTC CCTGCGTTCCTAGAGGACTACGGTATGGACGTC TGGGGCCAAGGGACCACGGTCACCGTCTCCTCA (SEQ ID NO: 451)	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CAAGTCCAGCCAGAGTGTTTGTACAGTTCAAAT AACAAGAACTACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTTACTGGGC ATCTACCCGGGCATCCGGGGTCCCTGACCGATTTC AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTCAGCAATATTATACTACTCCTCCA ACCTTCGGCCAAGGGACACGACTGGAGATTA (SEQ ID NO: 498)
Antibody 41,75	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGTCTCGGTGAAGGTCTCCTGC AAGGCTTCTGGAGGCACCTTCAGCAACTATGCTA TCAGCTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAGGGATCATTCCCATCTTTGG TTCGACAGCAAGCTACGCACAGAAGTTCCAGGG CAGAGTCACGATTACCGCGGACGAATCCACGAG CACAGCCTACATGGAGCTGAGCAGCCTGAGATCT GAGGACACGGCCGTGTATTACTGTGCGAGAGGT GTCGGAGACGACACCCTGACTGATTGGGGCCAA GGGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 452)	GATATTGTGATGACTCAGTCTCCACTCTCCCTGCC CGTACCCCTGGAGAGCCGGCCTCCATCTCCTGC AGGTCTAGTCAGAGCCTCCTGCATTCAAACGGGT ACAATAATTTGGATTGGTACCTGCAGAAGCCAGG GCAGTCTCCACAGCTCCTGATCTATGCTGCTTCTA GCCTGCAGTCCGGGGTCCCTGACAGGTTCACTG GCAGTGGATCAGGCACAGATTTTACACTGAAAAT CAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTA TTACTGCATGCAAGCTCTACAACTCCTCTCACTT TCGGCGGAGGGACCAAGGTGGAGATCAAA (SEQ ID NO: 499)
Antibody 42	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTACCAGCTACCACA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCGAACAGTG GTAACACAGGGTACGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CAAGTCCAGCCAGAGTCTTCTGTATACTTCCAAC GATCGCAACTACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTTACTGGGC ATCTACCCGGGAATCCGGGGTCCCTGACCGATTTC AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGGTG GACGCGTAGTGAGGGGGGTGATCAAAGGGTGG TTCGACCCCTGGGGCCAGGGAACCTGGTCACC GTCTCCTCA (SEQ ID NO: 453)	CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTCAGCAATATTATAGTAGCCCTTAC ACGTTCCGGCCAAGGGACCAAGGTGGAAATCAAA (SEQ ID NO: 500)
Antibody 43	CAGGTTTCAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTGGAACCTTTACCAGCTATGACA TCAATTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAGCGCATACAATG GTCATACAACTATGCACAGAATCTCCAGGGCAG AGTCACCATGACCCGCGACACATCCACGAGCACA GTGTACATGGAGCTGTGCGAGCCTGAGATCTGAA GACACGGCCGTGTATTACTGTGCGAGAGAAGAC AGTTCTTGGTACTTCGATCTCTGGGGCCGTGGCA CCCTGGTCACTGTCTCCTCA (SEQ ID NO: 454)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAGCATTAGCAGCTGGTTAGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCTAAG CTCCTGATCTATGACGCATCCAATTTGGAGACTG GGGTCCCATCAAGGTTCAAGTGGCAGTGGATCTG GGACAGATTTCACTCTCACCATCAGCAGTCTGCA ACCTGAAGATTTTGAACCTACTACTGTCAACAG AGTTTCAGTACCCCTCCAACGTTCCGGCCAAGGGA CCAAGGTGGAAATCAAA (SEQ ID NO: 501)
Antibody 44,76,93	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGTCTCGGTGAAGGTCTCCTGC AAGGCTTCTGGAGGCACCTTCAGCAAGATTGCTG TGAGCTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGACTTATCAACCCAACTCCGG TGGGACTGACTACGCACAGAAGTTCCAGGGCAG AGTCACGATTACCGCGGACGAATCCACGAGCAC AGCCTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAAGGACTTT AGAGGCGGGGATTATTACTATTATGGAATGGAC GTATGGGGCCAAGGGACCACGGTCACCGTCTCC TCA (SEQ ID NO: 455)	GAAATAGTGATGACGCAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCCTG CAGGGCCAGTCAGAGTGTTAGCAGCAACTTAGC CTGGTACCAGCAGAAACCTGGCCAGGCTCCCAG GCTCCTCATCTATGGTGCATCCACCAGGGCCACT GGTATCCCAGCCAGGTTCAAGTGGCAGTGGGTCT GGGACAGAGTTCACTCTCACCATCAGCAGCCTGC AGTCTGAAGATTTTGAGTTTATTACTGTGAGCA GTATAATACATACCCTATCACGTTCCGGCCAAGGG ACCAAGGTGGAAATCAAA (SEQ ID NO: 502)
Antibody 45,77,94, 106	CAGGTTTCAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACACCTTTACCAGCTATGGTA TCAGCTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATCAGCGCCTACAATG GTAACACAACTATGCACAGAAGTTCCAGGGCA GAGTCACCATGACCCGAGACACATCCACGAGCA CAGTGTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGAGGAA CTTACTACGATTATATTGGGGATCTTACAGGTA CAGCTGGTTTGACTACTGGGGCCAAGGGACCCT GGTCACCGTCTCCTCA (SEQ ID NO: 456)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGAGCATTAGCAGCTATTTAAATT GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGC TCCTGATCTATGCTGCATCCAGTTTGAAAGTGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGCAACTTACTACTGTCAACAGA GTTACAGTACCCCTCTCACTTTCGGCGGAGGGAC CAAGGTGGAGATCAAA (SEQ ID NO: 503)
Antibody 46	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTCTCCAGTTATGCTAT CTCTTGGGTGCGACAGGCCCGGACAAGGGCT TGAGTGGATGGGATGGATGGACCCTAACAGTGG TAACACAGGCTATGCACAGAAGTTCCAGGGCAG AGTCACCATGACCAGGGATACCTCCACCAGCACA	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CAGGCAAGTCAGGACATTAGCAACTATTTAAATT GGTATCAGCAGAAACCAGGGAAAGCCCCTAAGC TCCTGATCTATGCTGCATCCACCTTGAAACAGG GGTCCCATCAAGGTTCAAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	GTCTACATGGAGCTGAGCAGCCTGAGATCTGAG GACACGGCCGTGTATTACTGTGCGAGAGAGTCG TCCTACTATTATGATAGCAGCGCTACTATCCTG GATGGTACTTCGATCTCTGGGGCCGTGGCACCT GGTCACTGTCTCTCA (SEQ ID NO: 457)	CCTGAAGATTTTGCAACTTACTACTGTCAACAGA GTTACAGTACCCCTTGGACTTTCGGCCCTGGGAC CAAAGTGGATATCAAA (SEQ ID NO: 504)
Antibody 47,78	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTCACCACTATGGGA TCTCTGGGTGCGACAGGCCCCAGGACAAGGGC TTGAGTGGATGGGATGGATGGACCCAAACAGTG GTTCTACAGGCTATGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGATACCTCCACAGCAC AGTGTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAGAGGCCG GGGCAACAGCTACTACTACTACATGGACGTC TGGGGCAAAGGGACCGTCAACCGTCTCTCA (SEQ ID NO: 458)	GACATCCAGATGACCCAGTCTCCATCTTCTCTTTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGCGCATTGGTAGCTACTTAACT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTATGGAGCATCCAATTTGCAAAGTGG GGTCCCATCAAGGTTTCAGCGGCAGTGGATCTGG GACAGATTTCACTCTCACTATCAGCAGCCTGCAG CCTGAAGATTTTGCAACTTACTATTGTCAACAGG CTAACAGTTTCCCTTTCATTTTCGGCCCTGGGACC AAAGTGGATATCAAA (SEQ ID NO: 505)
Antibody 48,79,95, 107	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCACTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCCAATAGTG GTAATACAGGCTACGCACAGAAGTTCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCTAGAGATCA GATGTATAGTTCATACGGCATGGATGTCTGGGG CCAAGGGACAAGTGTACCGTCTCTCA (SEQ ID NO: 459)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTGAAAGCATTACAAACTGGTTAGCTT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTATAAAGCATCCAGTTTGGAAAGTGG GGTCCCATCAAGGTTTCAGTGGCAGTGGATCTGG GACAGATTTCACTCTCACCATCAGCAGTCTGCAA CCTGAAGATTTTGCAACTTACTACTGTCAACAGA GTTACGGTACCCCTTACACGTTTCGGCCAAGGGAC CAAGGTGGAAATCAAA (SEQ ID NO: 506)
Antibody 49	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGTCCTCGGTGAAGGTCTCCTGC AAGGCTTCTGGAGGCACCTTCAGCAGCTATGCTA TCAGCTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAGTCATCAACCTTCAGGTG GGTCCACATCATACGCACAGAAGTTCAGGGCA GAGTCACGATTACCGCGACGAATCCACGAGCA CAGCCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGAGAAT CTAGAGGGTACTATGGGATGGACGTGTGGGGCC AAGGGACCACTGTACCGTCTCTCA (SEQ ID NO: 460)	GACATCGTGATGACCCAGTCTCCAGACTCCCTGG CTGTGTCTCTGGGCGAGAGGGCCACCATCAACTG CAAGTCCAGCCAGAGTGTTCTCTATTCGTCCAAT AACAAGAATACTTAGCTTGGTACCAGCAGAAAC CAGGACAGCCTCCTAAGCTGCTCATTACTGGGC ATCTACCCGGGAATCCGGGGTCCCTGACCGATTTC AGTGGCAGCGGGTCTGGGACAGATTTCACTCTCA CCATCAGCAGCCTGCAGGCTGAAGATGTGGCAG TTTATTACTGTCAGCAATATTATAGTACTCCTTAC ACGTTTCGGCCAAGGGACCAAGGTGGAAATCAAA (SEQ ID NO: 507)
Antibody 50	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGATACACCTTCACCGCTACTATA TGCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAACCATCAACCTAGTGGTG GCAGCACAAGCTACGCACAGAAGTTCAGGGCA	GACATCCAGATGACCCAGTCTCCATCTTCTCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGT CGGGCGAGTCAGTCAATTAGCAGCTGGTTAGCCT GGTATCAGCAGAAACCAGGGAAAAGCCCTAAGC TCCTGATCTATGATACATCCAACCTGCAAGGTGG GGTCCCATCAAGGTTTCAGCGGCAGTGGATCTGG

Antibody No.	Variable Heavy Chain Nucleic Acid Sequence	Variable Light Chain Nucleic Acid Sequence
	GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGTCAAAGGTA ACGGCTACTACGACCTGTGGGGCCAAGGGACCC TGGTCACCGTCTCCTCA (SEQ ID NO: 461)	GACAGATTTCACTCTCACTATCAGCAGCCTGCAG CCTGAAGATTTTGCAACTTACTATTGTCAACAGTA TGATAGTTTCCCTTGGACGTTCCGGCCAAGGGACC AAGGTGGAAATCAAA (SEQ ID NO: 508)
Antibody 51,80,96, 108	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGATACACCTTACCCGATATGATA TCAACTGGGTGCGACAGGCCCGGACAAGGGC TTGAGTGGATGGGATGGATGAACCCTAACAGTG GTAACACAGGCTATGCACAGAAGTTACAGGGCA GAGTCACCATGACCAGGGACACCTCCACAAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGAGAGC GTGTGGGGTACTGCTCGAGCACCTCGTGTCTTCA TCCACTGGACTACTGGGGCCAAGGGACCTGGT CACCGTCTCCTCA (SEQ ID NO: 462)	GACATCCAGATGACCCAGTCTCCATCCTCCCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCAAGTCAGGGCATTAGAAAATGATTTAGGC TGGTATCAGCAGAAACCAGGGAAAGCCCCTAAG CTCCTGATCTATAGTGCATCCAATTTACAAAAGTG GGGTCCCATCAAGGTTACAGCGGCAGTGGATCTG GCACAGATTTCACTCTCACCATCAGCAGCCTGCA GCCTGAAGATTTTGCAACTTATTACTGTCAGCAA AGCTACGATGTCCCTCTCACTTTCGGCGGAGGGA CCAAGGTGGAGATCAAA (SEQ ID NO: 509)
Antibody 52,81	CAGGTTCAGCTGGTGCAGTCTGGAGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTCTCCTGC AAGGCTTCTGGTTACACCTTACCAGCTATGACAT CAACTGGGTGCGACAGGCCCTGGACAAGGGCT TGAGTGGATGGGATGGATCAGCGGGTACAATGG TAACACAACTATGCACAGAAGTTCCAGGGCAG AGTCACCATGACCAGGGACACATCCACGAGCAC AGTTTACATGGAGCTGAGCAGCCTGAGATCTGA GGACACGGCCGTGTATTACTGTGCGAGATCTTT GATTGGTTACTGCTACTTGA TACTACTGGGGCCAAG GGACCCTGGTCACCGTCTCCTCA (SEQ ID NO: 463)	GACATCCAGATGACCCAGTCTCCTTCCAGTCTGTC TGCATCTGTAGGAGACAGAGTCACCATCACTTGC CGGGCCAGTCAGAGTATTAGTAGCTGGTTGGCC TGGTATCAGCAGAAACCAGGGAAAGCCCCTAAG CTCCTGATCTATGATGCCACTACCTTGGAAAGTG GGGTCCCATCAAGGTTACAGCGGCAGTGGATCTG GGACAGATTTCACTCTCACCATCAGCAGCCTGCA GCCTGAAGATTTTGCAACTTATTACTGCCAACAG TATGACAGTTATCCATGGACGTTCCGGCCAAGGGA CCAAGCTCGAAATCAAA (SEQ ID NO: 510)
Antibody 53,82,97, 109	CAGGTGCAGCTGGTGCAGTCTGGGGCTGAGGTG AAGAAGCCTGGGGCCTCAGTGAAGGTTTCCTGC AAGGCATCTGGACACACCTTCAACAATAATTATA TCACTGGGTGCGACAGGCCCTGGACAAGGGC TTGAGTGGATGGGAATAATCAACCCTAGTGGTG GGAGCACAAGCTACGCACAGAAGTTCCAGGGCA GAGTCACCATGACCAGGGACACGTCCACGAGCA CAGTCTACATGGAGCTGAGCAGCCTGAGATCTG AGGACACGGCCGTGTATTACTGTGCGAGACAAA TACAGGATTACGGATACTACTATTACGGCATGGA CGTGTGGGGCCAAGGGACCACCGTCACCGTCTC CTCA (SEQ ID NO: 464)	GAAATAGTGATGACGCAGTCTCCAGCCACCCTGT CTGTGTCTCCAGGGGAAAGAGCCACCCTCTCCTG CAGGGCCAGTCAGAGTGTTAGCAAGTATTTAGCC TGGTACCAGCAGAAACCTGGCCAGGCTCCCAGG CTCCTCATCTATGCCATCTCCGCGAGGGCCGCTG GTATCCCAGCCAGGTTCA GTGGCAGTGGGTCTG GGACAGAGTTCACTCTCACCATCAGCAGCCTGCA GTCTGAAGATTTTGAGTTTATTACTGTCAGCAG TATTATTCCAGTCTCCTACGTTCCGGCCAAGGGA CCAAGGTGGAAATCAAA (SEQ ID NO: 511)

[00202] Accordingly, in some embodiments a nucleic acid sequence encoding for a SIRP γ antibody of the disclosure comprises a variable heavy chain nucleic acid sequence selected from SEQ ID NOS: 418-464, or at least 70% sequence identity thereto. In some embodiments a

nucleic acid sequence encoding for a SIRP γ antibody of the disclosure comprises a variable light chain nucleic acid sequence selected from SEQ ID NOS: 465-511, or at least 70% sequence identity thereto. The person of ordinary skill in the art will appreciate that, because of redundancy in the triplet code, multiple nucleic acids may encode the same amino acid sequence. Thus, nucleic acid sequences that are not identical to those set forth in Table 3 can still encode the amino acid sequences set forth in preceding section.

[00203] In some embodiments, provided herein is a nucleic acid encoding any of the SIRP γ antibodies disclosed herein. In some embodiments, provided herein is a nucleic acid comprising any one or more of the nucleic acid sequences of Table 3. In some embodiments, the heavy and light chain variable domains of the SIRP γ antibodies disclosed herein are encoded by a nucleic acid comprising any one or more of the nucleic acid sequences of Table 3.

[00204] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 418, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 465, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00205] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 419, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 466, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00206] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 420, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 467, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00207] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 421, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 468, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00208] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 422, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 469, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00209] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 423, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%,

76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 470, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00210] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 424, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 471, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00211] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 425, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 472, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00212] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 426, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence

of SEQ ID NO: 473, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00213] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 427, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 474, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00214] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 428, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 475, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00215] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 429, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 476, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00216] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 430, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 477, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00217] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 431, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 478, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00218] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 432, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 479, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00219] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 433, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%,

76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 480, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00220] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 434, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 481, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00221] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 435, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 482, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00222] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 436, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence

of SEQ ID NO: 483, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00223] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 437, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 484, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00224] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 438, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 485, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00225] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 439, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 486, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00226] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 440, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 487, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00227] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 441, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 488, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00228] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 442, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 489, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00229] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 443, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%,

76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 490, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00230] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 444, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 491, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00231] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 445, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 492, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00232] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 446, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence

of SEQ ID NO: 493, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00233] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 447, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 494, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00234] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 448, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 495, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00235] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 449, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 496, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00236] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 450, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 497, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00237] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 451, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 498, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00238] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 452, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 499, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00239] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 453, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%,

76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 500, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00240] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 454, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 501, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00241] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 455, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 502, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00242] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 456, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence

of SEQ ID NO: 503, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00243] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 457, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 504, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00244] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 458, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 505, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00245] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 459, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 506, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00246] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 460, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 507, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00247] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 461, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 508, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00248] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 462, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 509, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00249] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 463, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%,

76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 510, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00250] In some embodiments, provided herein is a SIRP γ antibody, wherein the heavy chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 464, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto; and/or the light chain variable domain of the antibody is encoded by a nucleic acid sequence comprising the sequence of SEQ ID NO: 511, or a nucleic acid sequence with at least 70%, 71%, 72%, 73%, 74%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% sequence identity thereto.

[00251] The disclosure also provides vectors comprising any nucleic acid of the disclosure. In some embodiments, the nucleic acid of the vector comprises any one or more of the nucleic acid sequences selected from Table 3. In some embodiments, the vector is an expression vector or an expression construct. In some embodiments, the vector is a mammalian vector. In some embodiments, the vector is a viral vector.

[00252] In some embodiments, the SIRP γ antibodies provided herein are produced by culturing a cell under suitable conditions for expressing the SIRP γ antibody, wherein the cell comprises a vector.

II. Uses of SIRP γ Antibodies

A. SIRP γ -Expressing Cell Depletion

[00253] Provided herein are methods of inducing Fc-mediated cell depletion, the method comprising contacting a SIRP γ -expressing cell with any of the Fc-containing SIRP γ antibodies of the disclosure. The method may be carried out in vitro or in vivo. In some embodiments, the

cell depletion involves antibody dependent cellular phagocytosis (ADCP). In some embodiments, the cell depletion involves antibody dependent cellular cytotoxicity (ADCC). In some embodiments, the cell depletion involves complement dependent cytotoxicity (CDC). In some embodiments, the cell depletion involves one or more of ADCP, ADCC, and CDC. One of more Fc substitutions of the disclosure may further modulate the depletion.

[00254] In some embodiments, the cells are in a stimulated (activated) state. Without being held to any theory or mechanism, the SIRP γ antibodies of the disclosure can be used to preferentially deplete pathogenic T-cells, activated T-cells, exhausted T-cells, unactivated T-cells (or other cells). In some embodiments, without being held to theory or mechanism, this may be due to the increased expression of SIRP γ on an activated T-cell. In some embodiments, without being held to theory or mechanism, this may be due to the differential expression of specific SIRP γ isoforms on specific T-cell subsets (e.g. isoforms set forth in SEQ ID NOS: 1-3, and 37). T-cell subsets include cells that are in different cell states, e.g. stimulated, exhausted; subsets also include T-cells that express different subsets of markers.

[00255] In some embodiments, the SIRP γ -expressing cells are SIRP γ -expressing T-cells. In some embodiments, the SIRP γ -expressing T-cells are in a naïve state. In some embodiments, the SIRP γ -expressing T-cells are in an activated (stimulated) state. In some embodiments, the SIRP γ -expressing T-cells are in an exhausted state. In some embodiments, the SIRP γ -expressing T-cells are in an undifferentiated state. In some embodiments, the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell, or an alpha beta ($\alpha\beta$) T-cell, or a gamma delta ($\gamma\delta$) T-cell. In some embodiments, the T-cell is a naïve, central memory, effector memory, exhausted, or terminal effector memory cell. In some embodiments, the T-cell is a CD4⁺ T-cell, CD8⁺ T-cell, CD3⁺ T-cell, Th1 cell, Th2 cell, Th17 cell or a T follicular helper cell.

[00256] In some embodiments, the T-cell is a CD3⁺ T-cell, CD4⁺ T-cell, CD8⁺ T-cell, CD25⁺ T-cell, CD69⁺ T-cell, and/or PD1⁺ T-cell. In some embodiments, the T-cell is a CD4⁺/CD8⁺ T-cell. In some embodiments, the T-cell is a CD69⁺/CD8⁺ T-cell. In some embodiments, the T-cell is a CD25⁺/CD8⁺ T-cell. In some embodiments, the T-cell is a PD1⁺ T-cell.

[00257] Certain SIRP γ antibodies of the disclosure also display preferential binding to and subsequent Fc-mediated depletion in certain cell types. Without being held to any theory or mechanism, the SIRP γ antibodies of the disclosure can be used to preferentially deplete certain cell types (expressing certain markers), or cells in a certain state (stimulated, exhausted). Without being held to theory or mechanism, this may be due to the differential expression of specific SIRP γ isoforms on specific T-cell subsets (e.g. isoforms set forth in SEQ ID NOS: 1-3, and 37).

[00258] The preferential binding may be at least 1.5-fold, at least 2-fold, at least 3-fold, at least 4-fold, at least 5-fold, at least 6-fold, at least 7-fold, at least 8-fold, at least 9-fold, at least 10-fold, at least 15-fold, at least 20-fold, at least 25-fold, or even at least 50-fold, as compared to the binding that is observed in a reference cell type or a reference cell state.

[00259] The increase in Fc-mediated depletion may be at least 1.5-fold, at least 2-fold, at least 3-fold, at least 4-fold, at least 5-fold, at least 6-fold, at least 7-fold, at least 8-fold, at least 9-fold, at least 10-fold, at least 15-fold, at least 20-fold, at least 25-fold, or even at least 50-fold increase in depletion, as compared to the depletion that is observed in a reference cell type or a reference cell state.

[00260] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of an activated (stimulated) T-cell, as compared to an unstimulated T-cell.

[00261] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺ T-cell.

[00262] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD4⁺ T-cell.

[00263] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell.

[00264] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell.

[00265] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.

[00266] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.

[00267] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.

[00268] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.

[00269] In some embodiments, certain SIRP γ antibodies of the disclosure exhibit preferential binding to and depletion of a SIRP γ -expressing PD1⁺ T-cell, compared to a PD1⁻ T-cell.

[00270] In some embodiments, exemplary antibodies that exhibit increased binding to and depletion of stimulated T-cells when compared to unstimulated T-cells include an antibody comprising the following sequences, making reference to Table 1 above:

a. the CDR-H1 amino acid sequence of SEQ ID NO: 211; the CDR-H2 amino acid sequence of SEQ ID NO: 247; the CDR-H3 amino acid sequence of SEQ ID NO: 279; the CDR-L1 amino acid sequence of SEQ ID NO: 102; the CDR-L2 amino acid sequence of SEQ ID NO: 140; and the CDR-L3 amino acid sequence of SEQ ID NO: 169.

b. the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 254; the CDR-H3 amino acid sequence of SEQ ID NO: 286; the CDR-L1 amino acid sequence of SEQ ID NO: 108; the CDR-L2 amino acid sequence of SEQ ID NO: 144; and the CDR-L3 amino acid sequence of SEQ ID NO: 176.

- c. the CDR-H1 amino acid sequence of SEQ ID NO: 213; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 290; the CDR-L1 amino acid sequence of SEQ ID NO: 112; the CDR-L2 amino acid sequence of SEQ ID NO: 148; and the CDR-L3 amino acid sequence of SEQ ID NO: 179.
- d. the CDR-H1 amino acid sequence of SEQ ID NO: 221; the CDR-H2 amino acid sequence of SEQ ID NO: 257; the CDR-H3 amino acid sequence of SEQ ID NO: 291; the CDR-L1 amino acid sequence of SEQ ID NO: 113; the CDR-L2 amino acid sequence of SEQ ID NO: 143; and the CDR-L3 amino acid sequence of SEQ ID NO: 180.
- e. the CDR-H1 amino acid sequence of SEQ ID NO: 222; the CDR-H2 amino acid sequence of SEQ ID NO: 258; the CDR-H3 amino acid sequence of SEQ ID NO: 292; the CDR-L1 amino acid sequence of SEQ ID NO: 106; the CDR-L2 amino acid sequence of SEQ ID NO: 149; and the CDR-L3 amino acid sequence of SEQ ID NO: 181.
- f. the CDR-H1 amino acid sequence of SEQ ID NO: 222; the CDR-H2 amino acid sequence of SEQ ID NO: 262; the CDR-H3 amino acid sequence of SEQ ID NO: 297; the CDR-L1 amino acid sequence of SEQ ID NO: 118; the CDR-L2 amino acid sequence of SEQ ID NO: 143; and the CDR-L3 amino acid sequence of SEQ ID NO: 186.
- g. the CDR-H1 amino acid sequence of SEQ ID NO: 226; the CDR-H2 amino acid sequence of SEQ ID NO: 263; the CDR-H3 amino acid sequence of SEQ ID NO: 299; the CDR-L1 amino acid sequence of SEQ ID NO: 120; the CDR-L2 amino acid sequence of SEQ ID NO: 140; and the CDR-L3 amino acid sequence of SEQ ID NO: 188.
- h. the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 266; the CDR-H3 amino acid sequence of SEQ ID NO: 303; the CDR-L1 amino acid sequence of SEQ ID NO: 124; the CDR-L2 amino acid sequence of SEQ ID NO: 143; and the CDR-L3 amino acid sequence of SEQ ID NO: 191.
- i. the CDR-H1 amino acid sequence of SEQ ID NO: 234; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 308; the CDR-L1 amino acid sequence of SEQ ID NO: 127; the CDR-L2 amino acid sequence of SEQ ID NO: 155; and the CDR-L3 amino acid sequence of SEQ ID NO: 196.

j. the CDR-H1 amino acid sequence of SEQ ID NO: 240; the CDR-H2 amino acid sequence of SEQ ID NO: 250; the CDR-H3 amino acid sequence of SEQ ID NO: 315; the CDR-L1 amino acid sequence of SEQ ID NO: 109; the CDR-L2 amino acid sequence of SEQ ID NO: 143; and the CDR-L3 amino acid sequence of SEQ ID NO: 203.

k. the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 318; the CDR-L1 amino acid sequence of SEQ ID NO: 135; the CDR-L2 amino acid sequence of SEQ ID NO: 162; and the CDR-L3 amino acid sequence of SEQ ID NO: 189.

l. the CDR-H1 amino acid sequence of SEQ ID NO: 243; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 321; the CDR-L1 amino acid sequence of SEQ ID NO: 136; the CDR-L2 amino acid sequence of SEQ ID NO: 164; and the CDR-L3 amino acid sequence of SEQ ID NO: 207.

m. the CDR-H1 amino acid sequence of SEQ ID NO: 244; the CDR-H2 amino acid sequence of SEQ ID NO: 256; the CDR-H3 amino acid sequence of SEQ ID NO: 323; the CDR-L1 amino acid sequence of SEQ ID NO: 137; the CDR-L2 amino acid sequence of SEQ ID NO: 166; and the CDR-L3 amino acid sequence of SEQ ID NO: 169.

[00271] Making reference to the data in Example 4, Antibodies 83, 84, 85, 86, 88, 89, 90, 92, 94, 95, 96, and 97 exhibit increased binding to stimulated T-cells when compared to unstimulated T-cells. The CDR and VH/VL sequences for these antibodies are provided in Tables 1 and 2.

[00272] In some embodiments, an exemplary antibody that preferentially binds to and depletes CD8⁺ T-cells when compared to CD4⁺ T-cells, includes an antibody comprising the following sequences, making reference to Table 1 above: the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 254; the CDR-H3 amino acid sequence of SEQ ID NO: 286; the CDR-L1 amino acid sequence of SEQ ID NO: 108; the CDR-L2 amino acid sequence of SEQ ID NO: 144; and the CDR-L3 amino acid sequence of SEQ ID NO: 176.

[00273] Making reference to Example 4, Antibody 84 preferentially binds to CD8⁺ T-cells when compared to CD4⁺ T-cells. The CDR and VH/VL sequences for this antibody is provided in Tables 1 and 2.

[00274] In some embodiments, an exemplary antibody that preferentially binds to and depletes CD69⁺/CD8⁺ T-cells and CD25⁺/CD8⁺ T-cells when compared to CD69⁻/CD8⁺ T-cells and CD25⁻/CD8⁺ T-cells includes an antibody comprising the following sequences, making reference to Table 1 above: the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 254; the CDR-H3 amino acid sequence of SEQ ID NO: 286; the CDR-L1 amino acid sequence of SEQ ID NO: 108; the CDR-L2 amino acid sequence of SEQ ID NO: 144; and the CDR-L3 amino acid sequence of SEQ ID NO: 176.

[00275] Making reference to the data in Example 4, Antibody 84 preferentially binds to CD69⁺/CD8⁺ T-cells and CD25⁺/CD8⁺ T-cells when compared to CD69⁻/CD8⁺ T-cells and CD25⁻/CD8⁺ T-cells. The CDR and VH/VL sequences for this antibody is provided in Tables 1 and 2.

[00276] In some embodiments, exemplary antibodies that preferentially bind to and deplete PD1⁺ T-cells when compared to PD1⁻ T-cells includes antibodies comprising the following sequences, making reference to Table 1 above:

a. the CDR-H1 amino acid sequence of SEQ ID NO: 213; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 290; the CDR-L1 amino acid sequence of SEQ ID NO: 112; the CDR-L2 amino acid sequence of SEQ ID NO: 148; and the CDR-L3 amino acid sequence of SEQ ID NO: 179;

b. the CDR-H1 amino acid sequence of SEQ ID NO: 222; the CDR-H2 amino acid sequence of SEQ ID NO: 262; the CDR-H3 amino acid sequence of SEQ ID NO: 297; the CDR-L1 amino acid sequence of SEQ ID NO: 118; the CDR-L2 amino acid sequence of SEQ ID NO: 143; and the CDR-L3 amino acid sequence of SEQ ID NO: 186;

c. the CDR-H1 amino acid sequence of SEQ ID NO: 216; the CDR-H2 amino acid sequence of SEQ ID NO: 249; the CDR-H3 amino acid sequence of SEQ ID NO: 318; the CDR-L1

amino acid sequence of SEQ ID NO: 135; the CDR-L2 amino acid sequence of SEQ ID NO: 162; and the CDR-L3 amino acid sequence of SEQ ID NO: 189;

d. the CDR-H1 amino acid sequence of SEQ ID NO: 244; the CDR-H2 amino acid sequence of SEQ ID NO: 256; the CDR-H3 amino acid sequence of SEQ ID NO: 323; the CDR-L1 amino acid sequence of SEQ ID NO: 137; the CDR-L2 amino acid sequence of SEQ ID NO: 166; and the CDR-L3 amino acid sequence of SEQ ID NO: 169.

[00277] Making reference to the data in Example 4, Antibodies 85, 89, 95, and 97 preferentially binds to PD1+ T-cells when compared to PD1- T-cells. The CDR and VH/VL sequences for these antibodies are provided in Tables 1 and 2.

[00278] In some embodiments, the SIRP γ -expressing cells are SIRP γ -expressing B-cells. In some embodiments, the SIRP γ -expressing B-cells may be in an activated state and may be preferentially depleted.

[00279] In some embodiments, the SIRP γ -expressing cells are NK-cells. In some embodiments, the SIRP γ -expressing NK-cells may be in an activated state and may be preferentially depleted.

[00280] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCC. In some embodiments, the SIRP γ antibody increases ADCC of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00281] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCP. In some embodiments, the SIRP γ antibody increases ADCP of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least

65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00282] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by CDC. In some embodiments, the SIRP γ antibody increases CDC of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00283] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCC and ADCP. In some embodiments, the SIRP γ antibody increases each of ADCC and ADCP of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00284] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCC and CDC. In some embodiments, the SIRP γ antibody increases each of ADCC and CDC of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00285] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCP and CDC. In some embodiments, the SIRP γ antibody increases each of ADCP and CDC of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

[00286] In some embodiments, contacting a SIRP γ -expressing cell with a Fc-containing SIRP γ antibody of the disclosure leads to depletion of the SIRP γ -expressing cell by ADCC, ADCP, and CDC. In some embodiments, the SIRP γ antibody increases each of ADCC, ADCP, and CDC of a by at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, or at least 99%. The method may be carried out in vitro or in vivo. The SIRP γ -expressing cell may be in an activated state. The SIRP γ -expressing cell may be a T-cell, a B-cell, or a NK-cell, as described above.

B. Therapeutic SIRP γ Antibodies

[00287] As discussed in the preceding section, provided herein are antibodies that recognize and bind to SIRP γ . In some embodiments the antibody does not disrupt the binding of CD47 to SIRP γ . In some embodiments, the antibody shows increased binding to activated SIRP γ -expressing cells. The antibodies disclosed herein may be used for therapeutics in a subject.

[00288] Accordingly, provided herein are methods of treating a disease or condition in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of a SIRP γ antibody of the disclosure, or a pharmaceutical composition thereof. In some embodiments, the subject is a mammalian subject. In some embodiments, the mammalian subject is a human subject. In some embodiments, the mammalian subject is a non-human primate, e.g. a cynomolgus monkey. In some embodiments, the mammalian subject is a model organism, e.g. a mouse, whereas treatment effects are modeled. An exemplary model includes a mouse GvHD model.

[00289] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for depleting a population of SIRP γ -expressing cells in the subject, for the treatment of a disease or condition. In some embodiments, the disease or condition is associated with overactivation, hyperproliferation, aberrant proliferation, dysfunction and/or dysregulation of SIRP γ -expressing cells. In some embodiments, the SIRP γ -expressing cell is a T-cell, a B-cell, or a NK-cell.

[00290] In some embodiments, the SIRP γ -expressing cell is in an activated state. Without being held to any theory or mechanism, the SIRP γ antibodies of the disclosure may be used to preferentially deplete pathogenic, activated T-cells (or other cells) sparing naïve T-cells (or other cells), allowing for the maintenance of immune surveillance.

[00291] In some embodiments the SIRP γ -expressing cell expresses one or more isoforms of SIRP γ . In some embodiments, a therapeutically effective amount of the antibody or the pharmaceutical composition is sufficient to deplete a population of SIRP γ -expressing cells in the subject, e.g. by ADCC, ADCP, and/or CDC. In some embodiments, the SIRP γ -expressing cells are tissue resident cells. In other embodiments, the SIRP γ -expressing cells are circulating. In some embodiments, the cell depletion is antibody dose-dependent.

[00292] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of an autoimmune, inflammatory, or oncological disease or condition. In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of a disease or condition selected from: Acute and Chronic eosinophilic pneumonia, Acute disseminated encephalomyelitis, Acute Disseminated Encephalomyelitis, Acute Lymphoblastic Leukemia (ALL), Acute myelogenous leukemia (AML), Addison's disease, Adult-onset Still's disease (AOSD), Aplastic anemia, Ataxia Telangiectasia, Atopic dermatitis, Autoimmune Hepatitis, Autoimmune lymphoproliferative syndrome, Axial spondyloarthritis (AxSpA), Birdshot Retinochoroidopathy, Castleman disease, Celiac disease, Chediak-Higashi syndrome, Coronary artery disease /peripheral artery disease, Crohn's Disease, Episodic angioedema with eosinophilia / Gleich syndrome, Giant- Lymphocyte arteritis, Graft failure post-HSCT, Graft vs Host Disease (GvHD), Graves' disease, Hepatosplenic lymphoma, Hypothyroidism, Idiopathic interstitial pneumonias, IgA nephropathy, Inclusion Body Myositis (IBM), Inflammatory bowel disease (IBD), Large granular lymphocytic leukemia, Lymphocyte-variant hypereosinophila,

Multiple sclerosis, Myelodysplastic syndromes (MDS), Myocarditis, Neuromyelitis optica spectrum disorders, Paraneoplastic syndromes, Primary biliary cholangitis, Primary sclerosing cholangitis, Rasmussen's Encephalitis, Rheumatoid arthritis (RA), Sarcoidosis, Schmidt syndrome / Autoimmune polyendocrine syndrome type II, Stiff Person Syndrome, Susac syndrome, Sympathetic Ophthalmis, Systemic juvenile idiopathic arthritis (sJIA), Systemic Lupus Erythematosus (SLE), T- Lymphocyte mediated rejection of solid organ transplants, T-Cell Prolymphocytic Leukemia (TPLL), Type 1 diabetes, early-onset Type 1 diabetes, Ulcerative colitis, Uveitis, Vitiligo, X-linked Hyper IgM Syndrome, and X-linked lymphoproliferative disease.

[00293] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD8⁺ T-cells (e.g. IBM and early-onset Type 1 diabetes) as it is noted that certain SIRP γ antibodies of the disclosure show preferential subtype binding.

[00294] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD4⁺ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00295] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by T-cells that are CD8⁺ and CD4⁺.

[00296] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD3⁺ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00297] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD25⁺ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00298] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD69+ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00299] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by PD1+ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00300] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD4+/CD8+ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00301] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD69+/CD8+ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

[00302] In some embodiments, the Fc-containing SIRP γ antibodies provided herein are useful for the treatment of disease or condition in which the disease or condition is driven by CD25+/CD8+ T-cells, as it is noted that certain SIR γ antibodies of the disclosure show preferential T-cell subtype binding.

C. Pharmaceutical Compositions

[00303] The disclosure also provides pharmaceutical compositions comprising any one of the SIRP γ antibodies disclosed herein, and optionally a pharmaceutical acceptable excipient or carrier. In some embodiments, the pharmaceutical composition is sterile. The pharmaceutical compositions may be formulated to be compatible with their intended routes of administration. In some embodiments, the pharmaceutical compositions of the disclosure are suitable for administration to a human subject.

D. Combination Therapies

[00304] The administration of any one of the therapeutic SIRP γ antibodies provided herein may be in combination with any other known drugs or treatments for diseases or conditions described above. Exemplary combinations, e.g. for the treatment of an oncology disease, includes one of the SIRP γ antibodies of the disclosure, administered in conjunction with a chemotherapeutic agent, cytotoxic agents, and corticosteroid drugs. Exemplary agents to be administered in combination include, but are not limited to cisplatin, Cladribine (2-CdA), Fludarabine, 6-thioguanine (6-TG), hydroxyurea, prednisone, dexamethasone, methotrexate (MTX), 6-mercaptopurine (6-MP), Azacitidine, and Decitabine.

E. Administration of Therapeutic SIRP γ Antibodies

[00305] The in vivo administration of the therapeutic SIRP γ antibodies described herein may be carried out intravenously, intramuscularly, subcutaneously, topically, orally, transdermally, intraperitoneally, intraorbitally, intrathecally, intraventricularly, intranasally, transmucosally, through implantation, or through inhalation. Intravenous administration may be carried out via injection or infusion. In some embodiments, the SIRP γ antibodies of the disclosure are administered intravenously. In some embodiments, the SIRP γ antibodies of the disclosure are administered intraperitoneally. In some embodiments, the SIRP γ antibodies of the disclosure are administered subcutaneously. Administration of the therapeutic SIRP γ antibodies may be performed with any suitable excipients, carriers, or other agents to provide suitable or improved tolerance, transfer, delivery, and the like.

[00306] Exemplary dosages include administration of one of the SIRP γ antibodies of the disclosure at a dose of about 0.5 mg/kg, about 1 mg/kg, about 3 mg/kg, about 5 mg/kg, about 10 mg/kg, about 15 mg/kg, about 20 mg/kg, about 25 mg/kg, about 30 mg/kg, about 40 mg/kg, or about 50 mg/kg.

F. Diagnostic Antibodies

[00307] The antibodies provided herein may also be used for diagnostic purposes. For example, diagnostic antibodies could be used for detecting the presence of a SIRP γ mediated disorder, or for detecting SIRP γ levels in a subject prior to dosing (e.g. as a companion diagnostic).

III. Kits and Articles of Manufacture

[00308] The disclosure also provides a kit or article of manufacture comprising any one of the antibodies disclosed herein, or any pharmaceutical composition disclosed herein. In some embodiments, the kits may further include instructional materials for carrying out any of the methods disclosed herein. In some embodiments, the kits may further include sterile containers or vials for holding the antibodies and/or pharmaceutical compositions disclosed herein. In some embodiments, the kits may further include sterile delivery devices for administering the antibodies and/or pharmaceutical compositions disclosed herein. In some embodiments, an article of manufacture comprises any pharmaceutical composition of the disclosure.

IV. Exemplary Enumerated Embodiments

[00309] Exemplary enumerated embodiments of the disclosure are as follows.

Set I

[00310] Embodiment I-1. An antibody comprising any one of the CDR combinations of Table 1 or any one of the VH/VL combinations of Table 2.

[00311] Embodiment I-2. The antibody of embodiment I-1, wherein the antibody is a monoclonal antibody.

[00312] Embodiment I-3. The antibody of any one of embodiments I-1 to I-2, wherein the antibody is an antibody fragment.

[00313] Embodiment I-4. The antibody of any one of embodiments I-1 to I-3, wherein the antibody is a human antibody.

[00314] Embodiment I-5. The antibody of any one of embodiments I-1 to I-3, wherein the antibody is a humanized antibody.

[00315] Embodiment I-6. The antibody of any one of embodiments I-1 to I-3, wherein the antibody is a chimeric antibody.

[00316] Embodiment I-7. The antibody of any one of embodiments I-1 to I-3, wherein the antibody is a full-length antibody.

[00317] Embodiment I-8. The antibody of any one of embodiments I-1 to I-7, wherein the Fc domain is selected from the group consisting of human IgG1, IgG2, IgG3, and IgG4.

[00318] Embodiment I-9. The antibody of embodiment I-8, wherein the Fc domain comprises SEQ ID NO: 5 or SEQ ID NO: 6, optionally with one or more Fc amino acid substitutions.

[00319] Embodiment I-10. The antibody embodiment I-9, wherein the Fc domain comprises one or more amino acid substitutions relative to SEQ ID NO: 5 or SEQ ID NO: 6 at a position selected from the group consisting of: 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[00320] Embodiment I-11. The antibody of any one of embodiments I-1 to I-10, wherein the binding of the antibody does not disrupt the interaction between CD47 and SIRP γ .

[00321] Embodiment I-12. The antibody of any one of embodiments I-1 to I-10, wherein the binding of the antibody disrupts the interaction between CD47 and SIRP γ .

[00322] Embodiment I-13. The antibody of any one of embodiments I-1 to I-10, wherein the binding of the antibody stabilizes the interaction between CD47 and SIRP γ .

[00323] Embodiment I-14. The antibody of any one of embodiments I-1 to I-13, wherein, the antibody binds human SIRP γ and cynomolgus monkey SIRP γ .

[00324] Embodiment I-15. The antibody of any one of embodiments I-1 to I-14, wherein the antibody comprises a binding affinity to SIRP γ lower than about 500 nM.

[00325] Embodiment I-16. An Fc-containing antibody that is specific for SIRP γ , wherein the antibody has low or no affinity for binding SIRP α and SIRP β 1, and wherein binding of the

antibody to a SIRP γ -expressing cell induces effector-mediated depletion of the SIRP γ -expressing cell.

[00326] Embodiment I-17. The antibody of embodiment I-16, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.

[00327] Embodiment I-18. The antibody of embodiment I-17, wherein the SIRP γ -expressing cell is a T-cell.

[00328] Embodiment I-19. The antibody of embodiment I-18, wherein the T-cell is a naïve, activated, central memory, effector memory, exhausted, or terminal effector memory cell.

[00329] Embodiment I-20. The antibody of embodiment I-18, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell, an alpha beta T-cell, or a gamma delta T-cell.

[00330] Embodiment I-21. The antibody of embodiment I-18, wherein the T-cell is a CD3+ T-cell, CD4+ T-cell or CD8+ T-cell.

[00331] Embodiment I-22. The antibody of embodiment I-18, wherein the T-cell is a Th1 cell, Th2 cell, Th17 cell or T follicular helper cell.

[00332] Embodiment I-23. The antibody of embodiment I-17, wherein the SIRP γ -expressing cell is a B-cell.

[00333] Embodiment I-24. The antibody of embodiment I-17, wherein the SIRP γ -expressing cell is an NK-cell.

[00334] Embodiment I-25. The antibody of any one of embodiments I-1 to I-24, wherein the SIRP γ -expressing cell is activated.

[00335] Embodiment I-26. The antibody of any one of embodiments I-1 to I-25, wherein the antibody preferentially depletes activated (stimulated) cells as a result of an increase in surface SIRP γ expression compared to naïve unactivated (unstimulated) cells.

[00336] Embodiment I-27. The antibody of any one of embodiments I-1 to I-26, wherein the binding of the antibody does not disrupt the interaction between CD47 and SIRP γ .

[00337] Embodiment I-28. The antibody of any one of embodiments I-1 to I-26, wherein the binding of the antibody stabilizes the interaction between CD47 and SIRP γ .

[00338] Embodiment I-29. The antibody of any one of embodiments I-1 to I-26, wherein the binding of the antibody disrupts the interaction between CD47 and SIRP γ .

[00339] Embodiment I-30. The antibody of any one of embodiments I-1 to I-29, wherein the cell depletion involves antibody dependent cellular phagocytosis (ADCP).

[00340] Embodiment I-31. The antibody of any one of embodiments I-1 to I-29, wherein the cell depletion involves antibody dependent cellular cytotoxicity (ADCC).

[00341] Embodiment I-32. The antibody of any one of embodiments I-1 to I-29, wherein the cell depletion involves complement dependent cytotoxicity (CDC).

[00342] Embodiment I-33. The antibody of any one of embodiments I-1 to I-32, wherein the antibody is a monoclonal antibody.

[00343] Embodiment I-34. The antibody of any one of embodiments I-1 to I-33, wherein the antibody is an antibody fragment.

[00344] Embodiment I-35. The antibody of any one of embodiments I-1 to I-34, wherein the antibody is a human antibody.

[00345] Embodiment I-36. The antibody of any one of embodiments I-1 to I-34, wherein the antibody is a humanized antibody.

[00346] Embodiment I-37. The antibody of any one of embodiments I-1 to I-34, wherein the antibody is a chimeric antibody.

[00347] Embodiment I-38. The antibody of any one of embodiments I-1 to I-34, wherein the antibody is a full-length antibody.

[00348] Embodiment I-39. The antibody of any one of embodiments I-1 to I-38, wherein the Fc domain is selected from the group consisting of human IgG1, IgG2, IgG3, and IgG4.

[00349] Embodiment I-40. The antibody of embodiment I-39, wherein the Fc domain comprises SEQ ID NO: 5 or SEQ ID NO: 6, optionally with one or more Fc amino acid substitutions.

[00350] Embodiment I-41. The antibody of any one of embodiments I-38 to I-40, wherein the Fc domain comprises one or more amino acid substitutions relative to SEQ ID NO: 5 or SEQ ID NO: 6 at a position selected from the group consisting of: 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[00351] Embodiment I-42. The antibody of any one of embodiments I-1 to I-41, wherein, the antibody binds human SIRP γ and cynomolgus monkey SIRP γ .

[00352] Embodiment I-43. The antibody comprising of anyone of embodiments I-1 to I-42, wherein the antibody comprises a binding affinity to SIRP γ lower than about 500 nM.

[00353] Embodiment I-44. A pharmaceutical composition comprising the antibody of any one of embodiments I-1-43, and optionally a pharmaceutically acceptable carrier.

[00354] Embodiment I-45. A nucleic acid encoding for the antibody of any one of embodiments I-1 to I-43.

[00355] Embodiment I-46. A vector comprising the nucleic acid embodiment I-45.

[00356] Embodiment I-47. A method of inducing the depletion of a population of SIRP γ -expressing cells, the method comprising contacting the population with the antibody of any one of embodiments I-1 to I-43.

[00357] Embodiment I-48. The method of embodiment I-47, wherein the SIRP γ -expressing cells are T-cells, B-cells and/or NK-cells.

[00358] Embodiment I-49. The method of embodiment I-47, wherein the SIRP γ -expressing cells are T-cells.

[00359] Embodiment I-50. The method of embodiment I-49, wherein the T-cells are naïve, central memory, effector memory, exhausted, or terminal effector memory cells.

[00360] Embodiment I-51. The method of embodiment I-49, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell, an alpha beta T-cell, or a gamma delta T-cell.

[00361] Embodiment I-52. The method of embodiment I-49, wherein the T-cells are CD3+ T-cells, CD4+ T-cells or CD8+ T-cells

[00362] Embodiment I-53. The method of embodiment I-49, wherein the T-cells are Th1 cells, Th2 cells, Th17 cells or T follicular helper cells.

[00363] Embodiment I-54. The method of embodiment I-47, wherein the SIRP γ -expressing cells are B-cells.

[00364] Embodiment I-55. The method of embodiment I-47, wherein the SIRP γ -expressing cells are NK-cells.

[00365] Embodiment I-56. The method of any one of embodiments I-47 to I-55, wherein, the SIRP γ -expressing cells are activated.

[00366] Embodiment I-57. The method of any one of embodiments I-47 to I-56, wherein the method is in vitro.

[00367] Embodiment I-58. The method of any one of embodiments I-47 to I-56, wherein the method is in vivo.

[00368] Embodiment I-59. The method any one of embodiments I-47 to I-58, wherein the population of SIRP γ -expressing cells comprises tissue-resident cells.

[00369] Embodiment I-60. The method any one of embodiments I-47 to I-59, wherein the population of SIRP γ -expressing cells comprises circulating cells.

[00370] Embodiment I-61. The method of any one of embodiments I-47 to I-60, wherein the depletion involves one or more of ADCC, ADCP, and CDC.

[00371] Embodiment I-62. A method of treating a disease or condition in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the antibody of any one of embodiments I-1 to I-43 or the pharmaceutical composition of embodiment I-44.

[00372] Embodiment I-63. The method of embodiment I-62, wherein the disease or condition involves SIRP γ -expressing cells.

[00373] Embodiment I-64. The method of embodiment I-63, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.

[00374] Embodiment I-65. The method of embodiment I-64, wherein the SIRP γ -expressing cell is a T-cell.

[00375] Embodiment I-66. The method of embodiment I-65, wherein the T-cell is activated.

[00376] Embodiment I-67. The method of any one of embodiments I-64 to I-66, wherein the T-cell is a CD4⁺ T-cell, CD8⁺ T-cell, Th1 cell, Th2 cell, Th17 cell or a T follicular helper cell.

[00377] Embodiment I-68. The method of any one of embodiments I-64 to I-66, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell or a gamma delta T-cell.

[00378] Embodiment I-69. The method of embodiment I-65, wherein the T-cell is a naïve, activated, central memory, effector memory, exhausted, or terminal effector memory cell.

[00379] Embodiment I-70. The method of embodiment I-64, wherein the SIRP γ -expressing cell is a B-cell.

[00380] Embodiment I-71. The method of embodiment I-70, wherein the B-Cell is activated.

[00381] Embodiment I-72. The method of embodiment I-64, wherein the SIRP γ -expressing cell is an NK-cell.

[00382] Embodiment I-73. The method of embodiment I-72, wherein the NK-cell is activated.

[00383] Embodiment I-74. The method of embodiments I-62 to I-73, wherein the disease or condition comprises an autoimmune, oncology, or inflammatory disorder.

[00384] Embodiment I-75. The method of embodiments I-64 to I-69, wherein the disease or condition comprises a T-cell-mediated autoimmune disease, T-cell-mediated inflammatory disease, or T-cell-mediated oncology disease.

[00385] Embodiment I-76. The method of embodiment I-74, wherein the disease or condition is selected from: Acute and Chronic eosinophilic pneumonia, Acute disseminated encephalomyelitis, Acute Disseminated Encephalomyelitis, Acute Lymphoblastic Leukemia (ALL), Acute myelogenous leukemia (AML), Addison's disease, Adult-onset Still's disease (AOSD), Aplastic anemia, Ataxia Telangiectasia, Atopic dermatitis, Autoimmune lymphoproliferative syndrome, Axial spondyloarthritis (AxSpA), Birdshot Retinochoroidopathy, Castleman disease, Celiac disease, Chediak-Higashi syndrome, Coronary artery disease /peripheral artery disease, Crohn's Disease, Episodic angioedema with eosinophilia / Gleich syndrome, Giant- Lymphocyte arteritis, Graft failure post-HSCT, Graft vs Host Disease (GvHD), Graves' disease, Hepatosplenic lymphoma, Hypothyroidism, Idiopathic interstitial pneumonias, IgA nephropathy, Inclusion Body Myositis (IBM), Inflammatory bowel disease (IBD), Large granular lymphocytic leukemia, Lymphocyte-variant hypereosinophilia, Multiple sclerosis, Myelodysplastic syndromes (MDS), Myocarditis, Neuromyelitis optica spectrum disorders, Paraneoplastic syndromes, Primary biliary cholangitis, Primary sclerosing cholangitis, Rasmussen's Encephalitis, Rheumatoid arthritis (RA), Sarcoidosis, Schmidt syndrome / Autoimmune polyendocrine syndrome type II, Stiff Person Syndrome, Susac syndrome, Sympathetic Ophthalmis, Systemic juvenile idiopathic arthritis (sJIA), Systemic Lupus Erythematosus (SLE), T- Lymphocyte mediated rejection of solid organ transplants, T-Cell Prolymphocytic Leukemia (TPLL), Type 1 diabetes, Ulcerative colitis, Uveitis, Vitiligo, X-linked Hyper IgM Syndrome, Autoimmune Hepatitis, and X-linked lymphoproliferative disease.

[00386] Embodiment I-77. The method of any one of embodiments I-62 to I-76, wherein the subject is human.

[00387] Embodiment I-78. A cell expressing SIRP γ , wherein the cell bound is to an antibody of any one of embodiments I-1 to I-43, wherein the antibody is bound to the SIRP γ .

[00388] Embodiment I-79. A kit or article of manufacture comprising an antibody of any one of embodiments I-1 to I-43, or the pharmaceutical composition of embodiment I-44.

[00389] Embodiment I-80. Use of the antibody of any one of embodiments I-1 to I-43, or the pharmaceutical composition of embodiment I-44 for the treatment of a disease or disorder in a subject in need thereof.

[00390] Embodiment I-81. Use of the antibody of any one of embodiments I-1 to I-43, or the pharmaceutical composition of embodiment I-44 for the manufacture of a medicament for the treatment of a disease or disorder in a subject in need thereof.

Set II:

[00391] Embodiment II-1. An Fc-containing antibody that is specific for SIRP γ , wherein the antibody has low or no affinity for binding SIRP α and SIRP β 1, and wherein binding of the antibody to a SIRP γ -expressing cell induces effector-mediated depletion of the SIRP γ -expressing cell.

[00392] Embodiment II-2. The antibody of embodiment II-1, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.

[00393] Embodiment II-3. The antibody of embodiment II-2, wherein the SIRP γ -expressing cell is a T-cell.

[00394] Embodiment II-4. The antibody of embodiment II-2, wherein the SIRP γ -expressing cell is a stimulated (activated) T-cell.

[00395] Embodiment II-5. The antibody of embodiment II-2, wherein the SIRP γ -expressing cell is an exhausted T-cell.

[00396] Embodiment II-6. The antibody of embodiment II-3, wherein the T-cell is a naïve, activated, central memory, effector memory, or terminal effector memory cell.

[00397] Embodiment II-7. The antibody of embodiment II-3, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell, an alpha beta T-cell, or a gamma delta T-cell.

[00398] Embodiment II-8. The antibody of embodiment II-3, wherein the T-cell is a Th1 cell, Th2 cell, Th17 cell or T follicular helper cell.

[00399] Embodiment II-9. The antibody of embodiment II-3, wherein the T-cell is a CD3+ T-cell, CD4+ T-cell, CD8+ T-cell, CD25+ T-cell, CD69+ T-cell, and/or PD1+ T-cell.

[00400] Embodiment II-10. The antibody of embodiment II-3, wherein the T-cell is a CD4+/CD8+ T-cell.

[00401] Embodiment II-11. The antibody of embodiment II-3, wherein the T-cell is a CD69+/CD8+ T-cell.

[00402] Embodiment II-12. The antibody of embodiment II-3, wherein the T-cell is a CD25+/CD8+ T-cell.

[00403] Embodiment II-13. The antibody of embodiment II-3, wherein the T-cell is a PD1+ T-cell.

[00404] Embodiment II-14. The antibody of embodiment II-3, wherein the binding of the antibody to a SIRP γ -expressing cell is preferential for a stimulated T-cell, as compared to an unstimulated T-cell.

[00405] Embodiment II-15. The antibody of embodiment II-3, wherein the binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a stimulated T-cell.

[00406] Embodiment II-16. The antibody of embodiment II-3, wherein the binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of an exhausted T-cell.

[00407] Embodiment II-17. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺ T-cell.

[00408] Embodiment II-18. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD4⁺ T-cell.

[00409] Embodiment II-19. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell.

[00410] Embodiment II-20. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell.

[00411] Embodiment II-21. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.

[00412] Embodiment II-22. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.

[00413] Embodiment II-23. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.

[00414] Embodiment II-24. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.

[00415] Embodiment II-25. The antibody of embodiment II-9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing PD1+ T-cell, when compared to a SIRP γ -expressing PD1- T-cell.

[00416] Embodiment II-26. The antibody of embodiment II-2, wherein the SIRP γ -expressing cell is a B-cell.

[00417] Embodiment II-27. The antibody of embodiment II-2, wherein the SIRP γ -expressing cell is an NK-cell.

[00418] Embodiment II-28. The antibody of any one of embodiments II-1 to II-27, wherein the SIRP γ -expressing cell is stimulated (activated).

[00419] Embodiment II-29. The antibody of any one of embodiments II-1 to II-27, wherein the SIRP γ -expressing cell is exhausted.

[00420] Embodiment II-30. The antibody of any one of embodiments II-1 to II-29, wherein the antibody preferentially depletes activated (stimulated) cells as a result of an increase in surface SIRP γ expression compared to naïve unactivated (unstimulated) cells.

[00421] Embodiment II-31. The antibody of any one of embodiments II-1 to II-30, wherein the cell depletion involves antibody dependent cellular phagocytosis (ADCP).

[00422] Embodiment II-32. The antibody of any one of embodiments II-1 to II-30, wherein the cell depletion involves antibody dependent cellular cytotoxicity (ADCC).

[00423] Embodiment II-33. The antibody of any one of embodiments II-1 to II-30, wherein the cell depletion involves complement dependent cytotoxicity (CDC).

[00424] Embodiment II-34. The antibody of any one of embodiments II-1 to II-33, wherein the antibody comprises the CDR amino acid sequences of any one of the combinations of Table 1, as presented in embodiment II-46.

[00425] Embodiment II-35. The antibody of any one of embodiments II-1 to II-34, wherein the antibody comprises the VH and VL amino acid sequences of any one of the combinations of

Table 2, or comprises a sequence having at least 70% sequence identity thereto, as presented in embodiment II-47.

[00426] Embodiment II-36. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to an activated (stimulated) T-cell, as compared to an unstimulated T-cell.

[00427] Embodiment II-37. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺ T-cell.

[00428] Embodiment II-38. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD4⁺ T-cell.

[00429] Embodiment II-39. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD69⁺ T-cell.

[00430] Embodiment II-40. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD25⁺ T-cell.

[00431] Embodiment II-41. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.

[00432] Embodiment II-42. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.

[00433] Embodiment II-43. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.

[00434] Embodiment II-44. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.

[00435] Embodiment II-45. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a PD1+ T-cell, when compared to a SIRP γ -expressing PD1- T-cell.

[00436] Embodiment II-46. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody comprises the amino acid sequences of any one of the forty-seven CDR combinations of Table 1.

[00437] Embodiment II-47. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody comprises the amino acid sequences of any one of the forty-seven VH/VL combinations of Table 1, or a sequence having at least 70% identity thereto.

[00438] Embodiment II-48. The antibody of any one of embodiments II-1 to II-47, wherein the antibody is an antibody fragment.

[00439] Embodiment II-49. The antibody of any one of embodiments II-1 to II-48, wherein the antibody is a human antibody.

[00440] Embodiment II-50. The antibody of any one of embodiments II-1 to II-48, wherein the antibody is a humanized antibody.

[00441] Embodiment II-51. The antibody of any one of embodiments II-1 to II-48, wherein the antibody is a chimeric antibody.

[00442] Embodiment II-52. The antibody of any one of embodiments II-1 to II-48, wherein the antibody is a full-length antibody.

[00443] Embodiment II-53. The antibody of any one of embodiments II-1 to II-52, wherein the antibody comprises a Fc domain, and the Fc domain is selected from the group consisting of human IgG1, IgG2, IgG3, and IgG4 heavy chain sequence.

[00444] Embodiment II-54. The antibody of embodiment II-53, wherein the Fc domain is from the heavy chain IgG amino acid sequences of SEQ ID NO: 5 or SEQ ID NO: 28, optionally with one or more Fc amino acid substitutions.

[00445] Embodiment II-55. The antibody of embodiment II-54, wherein the Fc domain is from the heavy chain IgG amino acid sequences of any one of SEQ ID NOS: 5-36.

[00446] Embodiment II-56. The antibody embodiment II-54, wherein the heavy chain Fc domain comprises one or more amino acid substitutions relative to SEQ ID NO: 5 or SEQ ID NO: 28 at a position selected from the group consisting of: 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme.

[00447] Embodiment II-57. The antibody of any one of embodiments II-1 to II-56, wherein the antibody comprises a light chain constant region that is from the amino acid sequences of any one of SEQ ID NOS: 38-42.

[00448] Embodiment II-58. The antibody of any one of embodiments II-1 to II-57, wherein the binding of the antibody does not disrupt the interaction between CD47 and SIRP γ .

[00449] Embodiment II-59. The antibody of any one of embodiments II-1 to II-57, wherein the binding of the antibody disrupts the interaction between CD47 and SIRP γ .

[00450] Embodiment II-60. The antibody of any one of embodiments II-1 to II-57, wherein the binding of the antibody stabilizes or promotes the interaction between CD47 and SIRP γ .

[00451] Embodiment II-61. The antibody of any one of embodiments II-1 to II-57, wherein, the antibody binds human SIRP γ and cynomolgus monkey SIRP γ .

[00452] Embodiment II-62. The antibody comprising of anyone of embodiments II-1 to II-57, wherein the antibody comprises a binding affinity to SIRP γ lower than about 500 nM.

[00453] Embodiment II-63. A pharmaceutical composition comprising the antibody of any one of embodiments II-1 to II-62, and optionally a pharmaceutically acceptable carrier.

[00454] Embodiment II-64. A nucleic acid encoding for the antibody of any one of embodiments II-1 to II-62.

[00455] Embodiment II-65. A vector comprising the nucleic acid embodiment II-64.

[00456] Embodiment II-66. A method of inducing the preferential depletion of a population of SIRP γ -expressing cells, the method comprising contacting the population with the antibody of any one of embodiments II-1 to II-62.

[00457] Embodiment II-67. The method of embodiment II-66, wherein the SIRP γ -expressing cells are T-cells, B-cells and/or NK-cells.

[00458] Embodiment II-68. The method of embodiment II-66, wherein the SIRP γ -expressing cells are T-cells.

[00459] Embodiment II-69. The method of embodiment II-68, wherein the T-cells are activated (stimulated).

[00460] Embodiment II-70. The method of embodiment II-68, wherein the T-cells are activated (stimulated), and the depletion is preferential for activated (stimulated) T-cells.

[00461] Embodiment II-71. The method of embodiment II-68, wherein the T-cells are exhausted.

[00462] Embodiment II-72. The method of embodiment II-68, wherein the T-cells are exhausted, and the depletion is preferential for exhausted T-cells.

[00463] Embodiment II-73. The method of embodiment II-68, wherein the T-cells are naïve, central memory, effector memory, exhausted, or terminal effector memory cells.

[00464] Embodiment II-74. The method of embodiment II-68, wherein the T-cells are cytotoxic T-cells, helper T-cells, memory T-cells, regulatory T-cells, natural killer T-cells, mucosal associated invariant T-cells, alpha beta T-cells, or gamma delta T-cells.

[00465] Embodiment II-75. The method of embodiment II-68, wherein the T-cells are Th1 cells, Th2 cells, Th17 cells or T follicular helper cells

[00466] Embodiment II-76. The method of embodiment II-68, wherein the T-cells are a CD3+ T-cell, CD4+ T-cell, CD8+ T-cell, CD25+ T-cell, CD69+ T-cell, and/or PD1+ T-cell.

[00467] Embodiment II-77. The method of embodiment II-76, wherein the T-cells are CD4+/CD8+ T-cells.

[00468] Embodiment II-78. The method of embodiment II-76, wherein the T-cells are CD69+/CD8+ T-cells.

[00469] Embodiment II-79. The method of embodiment II-76, wherein the T-cells are CD25+/CD8+ T-cells.

[00470] Embodiment II-80. The method of embodiment II-76, wherein the T-cells are PD1+ T-cells.

[00471] Embodiment II-81. The method of embodiment II-76, wherein the depletion is preferential for stimulated T-cells, as compared to unstimulated T-cells.

[00472] Embodiment II-82. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8+ T-cells.

[00473] Embodiment II-83. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD4+ T- cells.

[00474] Embodiment II-84. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD69+ T- cells.

[00475] Embodiment II-85. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD25+ T- cells.

[00476] Embodiment II-86. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8+ T-cells, when compared to SIRP γ -expressing CD4+ T-cells.

[00477] Embodiment II-87. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD4+ T-cells, when compared to SIRP γ -expressing CD8+ T-cells.

[00478] Embodiment II-88. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8⁺/CD69⁺ T-cells, when compared to SIRP γ -expressing CD8⁺/CD69⁻ T- cells.

[00479] Embodiment II-89. The method of embodiment II-76, wherein the depletion is preferential for SIRP γ -expressing CD8⁺/CD25⁺ T-cells, when compared to SIRP γ -expressing CD8⁺/CD25⁻ T- cells.

[00480] Embodiment II-90. The method of embodiment II-66, wherein the SIRP γ -expressing cells are B-cells.

[00481] Embodiment II-91. The method of embodiment II-66, wherein the SIRP γ -expressing cells are NK-cells.

[00482] Embodiment II-92. The method of any one of embodiments II-66 to II-91, wherein, the SIRP γ -expressing cells are activated.

[00483] Embodiment II-93. The method of any one of embodiments II-66 to II-92, wherein the method is *in vitro*.

[00484] Embodiment II-94. The method of any one of embodiments II-66 to II-92, wherein the method is *in vivo*.

[00485] Embodiment II-95. The method any one of embodiments II-66 to II-94, wherein the population of SIRP γ -expressing cells comprises tissue-resident cells.

[00486] Embodiment II-96. The method any one of embodiments II-66 to II-95, wherein the population of SIRP γ -expressing cells comprises circulating cells.

[00487] Embodiment II-97. The method of any one of embodiments II-66 to II-96, wherein the depletion involves one or more of ADCC, ADCP, and CDC.

[00488] Embodiment II-98. A method of treating a disease or condition in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the

antibody of any one of embodiments II-1 to II-62 or the pharmaceutical composition of embodiment II-63.

[00489] Embodiment II-99. The method of embodiment II-98, wherein the disease or condition involves SIRP γ -expressing cells.

[00490] Embodiment II-100. The method of embodiment II-99, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.

[00491] Embodiment II-101. The method of embodiment II-100, wherein the SIRP γ -expressing cell is a T-cell.

[00492] Embodiment II-102. The method of embodiment II-101, wherein the T-cell is stimulated (activated).

[00493] Embodiment II-103. The method of embodiment II-101, wherein the T-cell is exhausted.

[00494] Embodiment II-104. The method of any one of embodiments II-100 to II-102, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell or a gamma delta T-cell.

[00495] Embodiment II-105. The method of any one of embodiments II-100 to II-102, wherein the T-cell is a naïve, central memory, effector memory, or terminal effector memory cell.

[00496] Embodiment II-106. The method of any one of embodiments II-100 to II-102, wherein the T-cell is a CD3⁺ T-cell, CD4⁺ T-cell, CD8⁺ T-cell, CD25⁺ T-cell, CD69⁺ T-cell, and/or PD1⁺ T-cell.

[00497] Embodiment II-107. The method of embodiment II-106, wherein the T-cell is a CD4⁺/CD8⁺ T-cell.

[00498] Embodiment II-108. The method of embodiment II-106, wherein the T-cell is a CD69⁺/CD8⁺ T-cell.

[00499] Embodiment II-109. The method of embodiment II-106, wherein the T-cell is a CD25+/CD8+ T-cell.

[00500] Embodiment II-110. The method of embodiment II-106, wherein the T-cell is a PD1+ T-cell.

[00501] Embodiment II-111. The method of embodiment II-106, wherein the binding of the antibody is preferential for an stimulated T-cell, as compared to an unstimulated T-cell.

[00502] Embodiment II-112. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8+ T-cell.

[00503] Embodiment II-113. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD4+ T-cell.

[00504] Embodiment II-114. The method of embodiment II-106, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8+/CD69+ T-cell.

[00505] Embodiment II-115. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8+/CD25+ T-cell.

[00506] Embodiment II-116. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8+ T-cell, when compared to a SIRP γ -expressing CD4+ T-cell.

[00507] Embodiment II-117. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD4+ T-cell, when compared to a SIRP γ -expressing CD8+ T-cell.

[00508] Embodiment II-118. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8+/CD69+ T-cell, when compared to a SIRP γ -expressing CD8+/CD69- T-cell.

[00509] Embodiment II-119. The method of embodiment II-106, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺/CD25⁺ T- cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.

[00510] Embodiment II-120. The method of embodiment II-100, wherein the SIRP γ -expressing cell is a B-cell.

[00511] Embodiment II-121. The method of embodiment II-120, wherein the B-Cell is activated.

[00512] Embodiment II-122. The method of embodiment II-100, wherein the SIRP γ -expressing cell is an NK-cell.

[00513] Embodiment II-123. The method of embodiment II-122, wherein the NK-cell is activated.

[00514] Embodiment II-124. The method of any one of embodiments II-98 to II-123, wherein the disease or condition comprises an autoimmune, oncology, or inflammatory disorder.

[00515] Embodiment II-125. The method of embodiment II-124, wherein the disease or condition comprises a T-cell-mediated autoimmune disease, T-cell-mediated inflammatory disease, or T-cell-mediated oncology disease.

[00516] Embodiment II-126. The method of any one of embodiments II-98 to II-123, wherein the disease or condition is driven by CD8⁺ T-cells.

[00517] Embodiment II-127. The method of any one of embodiments II-98 to II-123, wherein the disease or condition is driven by CD4⁺ T-cells.

[00518] Embodiment II-128. The method of any one of embodiments II-98 to II-123, wherein the disease or condition is driven by CD8⁺ T-cells and CD4⁺ T-cells.

[00519] Embodiment II-129. The method of any one of embodiments II-98 to II-125, wherein the disease or condition is selected from: Acute and Chronic eosinophilic pneumonia, Acute disseminated encephalomyelitis, Acute Disseminated Encephalomyelitis, Acute Lymphoblastic Leukemia (ALL), Acute myelogenous leukemia (AML), Addison's disease, Adult-onset Still's

disease (AOSD), Aplastic anemia, Ataxia Telangiectasia, Atopic dermatitis, Autoimmune lymphoproliferative syndrome, Axial spondyloarthritis (AxSpA), Birdshot Retinochoroidopathy, Castleman disease, Celiac disease, Chediak-Higashi syndrome, Coronary artery disease /peripheral artery disease, Crohn's Disease, Episodic angioedema with eosinophilia / Gleich syndrome, Giant- Lymphocyte arteritis, Graft failure post-HSCT, Graft vs Host Disease (GvHD), Graves' disease, Hepatosplenic lymphoma, Hypothyroidism, Idiopathic interstitial pneumonias, IgA nephropathy, Inclusion Body Myositis (IBM), Inflammatory bowel disease (IBD), Large granular lymphocytic leukemia, Lymphocyte-variant hypereosinophilia, Multiple sclerosis, Myelodysplastic syndromes (MDS), Myocarditis, Neuromyelitis optica spectrum disorders, Paraneoplastic syndromes, Primary biliary cholangitis, Primary sclerosing cholangitis, Rasmussen's Encephalitis, Rheumatoid arthritis (RA), Sarcoidosis, Schmidt syndrome / Autoimmune polyendocrine syndrome type II, Stiff Person Syndrome, Susac syndrome, Sympathetic Ophthalmis, Systemic juvenile idiopathic arthritis (sJIA), Systemic Lupus Erythematosus (SLE), T- Lymphocyte mediated rejection of solid organ transplants, T-Cell Prolymphocytic Leukemia (TPLL), Type 1 diabetes, Ulcerative colitis, Uveitis, Vitiligo, X-linked Hyper IgM Syndrome, Autoimmune Hepatitis, and X-linked lymphoproliferative disease.

[00520] Embodiment II-130. The method of any one of embodiments II-98 to II-129, wherein the subject is human.

[00521] Embodiment II-131. A cell expressing SIRP γ , wherein the cell bound is to an antibody of any one of embodiments II-1 to II-62, wherein the antibody is bound to the SIRP γ .

[00522] Embodiment II-132. A kit or article of manufacture comprising an antibody of any one of embodiments II-1 to II-62, or the pharmaceutical composition of embodiment II-63.

[00523] Embodiment II-133. Use of the antibody of any one of embodiments II-1 to II-62, or the pharmaceutical composition of embodiment II-63 for the treatment of a disease or disorder in a subject in need thereof.

[00524] Embodiment II-134. Use of the antibody of any one of embodiments II-1 to II-62, or the pharmaceutical composition of embodiment II-63 for the manufacture of a medicament for the treatment of a disease or disorder in a subject in need thereof.

EXAMPLES

Example 1: Hybridoma Library Screens for Identification of Anti-Human SIRP γ Antibodies

[00525] Anti-human SIRP γ (Anti-hSIRP γ) monoclonal antibodies (referred to in these examples simply as SIRP γ antibodies) were identified from a transgenic mouse model. Harbour Mice® H2L2 strain were immunized with the extracellular domain of human SIRP γ (hSIRP γ). Using standard techniques, hybridoma libraries (two libraries) were generated from the splenocytes of immunized animals. Anti-hSIRP γ antibody-producing clones were identified by flow cytometric analyses of hSIRP γ -expressing cells exposed to antibody-containing supernatants of individual clones. Anti-hSIRP γ -specific clones were picked with counter screens against human SIRP α -expressing cells and human SIRP β 1-expressing cells via flow cytometry and confirmed with SIRP protein binding via ELISA. All clones resulted from this campaign have a human variable region and rodent constant regions. Select clones were reformatted to fully human antibodies, that is they were reformatted to have a human variable region, and a human constant region. It is noted that the human constant region could comprise any one of the Fc regions provided in this disclosure, e.g. those of SEQ ID NOS: 5-36, canonical, modified or otherwise.

Example 2: Phage Antibody Library Screens for Identification of Anti-Human SIRP γ Antibodies

[00526] Using a separate approach, additional SIRP γ antibodies were identified from a fully human phage display library. The library was first enriched for human SIRP γ binding on magnetic beads. Multiple sub-libraries were made with deselection of SIRP α and SIRP β 1 binders and/or positive selection cynomolgus monkey SIRP γ cross reactivity. The resulting specific single clone library was generated and sequenced. All clones resulted from this campaign are single-chain fragment variable (scFv) antibodies as crude periplasmic extracts (PPE). Select clones were reformatted to fully human antibodies to include various Fcs of the disclosure (e.g. Fc that increases effector function, Fc that decreases effector function, and the like), that is they were reformatted to have a human variable region and a human constant

region. It is noted that the human constant region could comprise any one of the Fc regions provided in this disclosure, e.g. those of SEQ ID NOS: 5-36, canonical, modified or otherwise.

Example 3: Binding of SIRP γ Antibodies to SIRP Proteins

[00527] Selected hybridoma supernatants of Example 1 were tested for binding to human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α V1, cynomolgus monkey SIRP α , human SIRP β 1, and cynomolgus monkey SIRP β 1 by enzyme-linked immunosorbent assay (ELISA). Briefly, 2 μ g/mL of the extracellular domain of SIRP protein was coated onto high protein-binding plates and blocked. Undiluted supernatants were added to coated plates. The antibodies were detected by an anti-rat antibody and a chemiluminescent substrate. FIG. 1 shows the results of binding of Antibodies 1 and 2 to the various SIRP proteins. The data depict the relative luminescence units read by a plate-reader capable of detecting chemiluminescence.

[00528] FIGS. 2A-2G show binding curves of SIRP γ antibodies and human Fc isotype controls to human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α V1, human SIRP α V2, and human SIRP β 1 by ELISA. Select SIRP γ antibodies from Example 1 and Example 2 were fully made human as noted above. Isotype control 1 was an unrelated human IgG1 antibody with irrelevant CDRs (non- SIRP γ -binding) containing the same amino acid substitutions in the Fc region as some of the selected SIRP γ antibodies for increased Fc γ R binding. Isotype control 2 was an unrelated human IgG1 antibody with irrelevant CDRs with no modifications in the Fc region. DNA was transiently transfected into Expi293F cells for 5 days. Antibodies were purified by Protein A from cell supernatants and analyzed in a titration via ELISA as previously described in FIG. 1 using an anti-human IgG antibody as the detection antibody.

[00529] Select antibodies from Example 1 of the disclosure were tested for their affinities to human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α V1, human SIRP α V2, and human SIRP β 1 using a biolayer interferometry (BLI) Octet system (Pall ForteBio). Each antibody was immobilized on a biosensor tip by an anti-human IgG capture (AHC). SIRP-His monomer protein at multiple concentrations (starting at 300 nM diluted 1:2 for 7 total concentrations) were exposed to the biosensor to measure on-rate kinetics of SIRP γ antibodies binding to SIRP-His protein. The biosensors were then exposed to wash buffer to measure off-rate kinetics. The resulting kinetic data were analyzed and fitted using a 1:1 binding model. Affinities were

calculated as a global KD and is presented in Table 4 below. The table shows the KD (in M) of binding of selected antibodies to monomeric human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α V1, human SIRP α V2, and human SIRP β 1 as assayed by ForteBio Octet.

[00530] The enriched library of scFv antibodies from Example 2 were tested for binding to human SIRP γ using the Octet system. Unique binders were further tested for binding to human SIRP α V1, human SIRP α V2, and human SIRP β 1. Briefly, biotinylated anti-V5 was immobilized onto streptavidin biosensors. Each V5-tagged SIRP γ scFv antibody as crude PPE was captured by the anti-V5 antibody. SIRP-His monomer protein at 500nM was exposed to the biosensor for binding to SIRP scFv. The biosensors were then exposed to wash buffer to measure off-rate kinetics. The resulting association and dissociation kinetics (kdis) was analyzed. Sensorgrams were visually inspected, and antibodies were categorized into strong, medium, weak, hetero or non-binders and the category is presented in Table 5 below. Similarly, cross-reactivity to cynomolgus monkey SIRP γ , cynomolgus monkey SIRP α , and cynomolgus monkey SIRP β 1 were tested. Antibodies were categorized into binders and non-binders and presented in Table 6 below. Making reference to Table 5, Strong kdis < 0.001 per second; medium kdis > 0.001/second but < 0.01 per second; weak kdis > 0.01 per second. Heterogeneous (hetero) kinetics indicated baseline drift and binding category could not be determined. Making reference to Table 5 and 6, Binder has analyte response level $\geq$ 0.02 nm at 115 seconds during association. Non-binder has analyte response level < 0.02 nm at 115 seconds during association.

[00531] Select antibodies from Example 2 were tested for their affinities to human SIRP γ and cynomolgus monkey SIRP γ using a biolayer interferometry (BLI) Octet system (Pall ForteBio). Antibodies were coated onto anti-human Fc capture (AHC) biosensors. SIRP-His monomer protein or bivalent SIRP protein with mouse Fc at four concentrations (200 nM, 100 nM, 50 nM, 25nM) were exposed to the biosensor to measure on-rate kinetics of SIRP antibodies binding to SIRP protein. The biosensors were then exposed to wash buffer to measure off-rate kinetics. The resulting kinetic data were analyzed and fitted using a global 1:2 binding model. The KD affinities for each antibody are presented in Table 7 below.

Table 4: Affinities (K_D) of Exemplary Antibodies to Various SIRP Proteins

Antibody No.	Human SIRPγ (M)	Cyno SIRPγ (M)	Human SIRPα V1 (M)	Human SIRPα V2 (M)	Human SIRPβ1 (M)
7	2.96E-07	2.20E-06	Association not measurable	Association not measurable	Association not measurable
8	2.07E-09	8.01E-09	Association not measurable	Association not measurable	Association not measurable

Table 5: Human SIRP Binding Category for Unique scFv Clones

Antibody No.	Human SIRPγ	Human SIRPα V1	Human SIRPα V2	Human SIRPβ1
9	Medium	Non-binder	Non-binder	Non-binder
10	Medium	Non-binder	Non-binder	Non-binder
11	Medium	Weak	Non-binder	Non-binder
12	Medium	Non-binder	Non-binder	Non-binder
13	Medium	Non-binder	Non-binder	Non-binder
14	Medium	Non-binder	Non-binder	Non-binder
15	Medium	Non-binder	Non-binder	Non-binder
16	hetero	Non-binder	Non-binder	Non-binder
17	hetero	Non-binder	Non-binder	Weak
18	Medium	Non-binder	Non-binder	Non-binder
19	Strong	Non-binder	Non-binder	Non-binder
20	Strong	Non-binder	Non-binder	Non-binder
21	Medium	Non-binder	Non-binder	Non-binder
22	Strong	Non-binder	Non-binder	Strong
23	Medium	Non-binder	Non-binder	Non-binder
24	Weak	Non-binder	Non-binder	Non-binder
25	Medium	Non-binder	Non-binder	Non-binder
26	Medium	Non-binder	Non-binder	Non-binder
27	Medium	Non-binder	Non-binder	Non-binder
28	Medium	Weak	Medium	Strong
29	Medium	Non-binder	Non-binder	Non-binder
30	Medium	Non-binder	Non-binder	Non-binder
31	Medium	Weak	Weak	Non-binder
32	Strong	Non-binder	Non-binder	Non-binder
33	Medium	Non-binder	Non-binder	Non-binder
34	Medium	Non-binder	Non-binder	Non-binder
35	Medium	Non-binder	Non-binder	Non-binder
36	Strong	Non-binder	Non-binder	Non-binder
37	Medium	Weak	Non-binder	Non-binder

Antibody No.	Human SIRP γ	Human SIRP α V1	Human SIRP α V2	Human SIRP β 1
38	Medium	Non-binder	Non-binder	Non-binder
39	Medium	Non-binder	Non-binder	Non-binder
40	Medium	Non-binder	Non-binder	Non-binder
41	Weak	Non-binder	Non-binder	Non-binder
42	Weak	Non-binder	Non-binder	Non-binder
43	hetero	Non-binder	Non-binder	Non-binder
44	Weak	Non-binder	Non-binder	Non-binder
45	Weak	Non-binder	Non-binder	Non-binder
46	Weak	Non-binder	Non-binder	Non-binder
47	Weak	Non-binder	Non-binder	Non-binder
48	Medium	Non-binder	Non-binder	Non-binder
49	Weak	Non-binder	Non-binder	Non-binder
50	Weak	Non-binder	Weak	Non-binder
51	Medium	Non-binder	Non-binder	Non-binder
52	Weak	Non-binder	Non-binder	Non-binder
53	Weak	Non-binder	Non-binder	Non-binder

Table 6: Cynomolgus Monkey SIRP Binding Category for Unique scFv Clones

Antibody No.	Cyno SIRP γ	Cyno SIRP α	Cyno SIRP β 1
9	Binder	Non-binder	Non-binder
10	Binder	Non-binder	Non-binder
11	Binder	Binder	Binder
12	Binder	Binder	Non-binder
13	Binder	Non-binder	Binder
14	Binder	Binder	Non-binder
15	Binder	Non-binder	Non-binder
16	Binder	Non-binder	Non-binder
17	Binder	Non-binder	Non-binder
18	Binder	Non-binder	Non-binder
19	Binder	Non-binder	Non-binder
20	Binder	Non-binder	Non-binder
21	Binder	Non-binder	Non-binder
22	Binder	Binder	Binder
23	Binder	Non-binder	Non-binder
24	Binder	Non-binder	Non-binder
25	Binder	Non-binder	Non-binder
26	Binder	Non-binder	Non-binder
27	Binder	Non-binder	Non-binder
28	Binder	Non-binder	Non-binder

Antibody No.	Cyno SIRP γ	Cyno SIRP α	Cyno SIRP β 1
29	Binder	Non-binder	Non-binder
30	Binder	Non-binder	Non-binder
31	Binder	Non-binder	Non-binder
32	Binder	Non-binder	Non-binder
33	Binder	Non-binder	Non-binder
34	Binder	Non-binder	Non-binder
35	Binder	Non-binder	Non-binder
36	Binder	Non-binder	Non-binder
37	Binder	Binder	Binder
38	Binder	Non-binder	Non-binder
39	Binder	Non-binder	Non-binder
40	Binder	Non-binder	Non-binder
41	Binder	Non-binder	Non-binder
42	Binder	Non-binder	Non-binder
43	Binder	Non-binder	Non-binder
44	Binder	Non-binder	Non-binder
45	Binder	Non-binder	Non-binder
46	Binder	Binder	Non-binder
47	Binder	Non-binder	Non-binder
48	Binder	Non-binder	Non-binder
49	Binder	Non-binder	Non-binder
50	Binder	Non-binder	Non-binder
51	Binder	Non-binder	Non-binder
52	Binder	Non-binder	Non-binder
53	Binder	Non-binder	Non-binder

Table 7: Affinities (K_D) of SIRP Antibodies with human Fc to Human SIRP γ and cynomolgus monkey SIRP γ

Antibody No.	Human SIRP γ -His (M)	Cyno SIRP γ -His (M)	Human SIRP γ -mFc (M)
83	1.74E-07	1.17E-08	5.32E-08
84	N/A	3.41E-08	2.05E-06
85	9.69E-08	9.61E-08	3.56E-08
86	5.61E-08	4.82E-08	3.92E-09
88	1.36E-07	6.78E-08	5.06E-08
89	2.97E-07	2.62E-08	1.32E-06
90	1.75E-07	6.92E-08	8.76E-08
92	1.23E-08	2.96E-06	9.03E-09
94	3.01E-08	4.26E-08	8.02E-08
95	1.93E-07	4.03E-08	1.28E-06
96	7.03E-08	2.11E-07	2.15E-08

Antibody No.	Human SIRP γ -His (M)	Cyno SIRP γ -His (M)	Human SIRP γ -mFc (M)
97	3.62E-07	1.63E-08	4.84E-08

*N/A = Not applicable, software unable to fit due to low binding

Example 4: Binding of SIRP γ antibodies to cells in vitro via Flow Cytometry

[00532] Selected antibodies and an isotype control were tested for binding to human T-cells, B-cells, NK cells, monocytes, and granulocytes. FIGS. 3A-3D show the results of binding studies performed with exemplary antibodies to T-cells, B-cells, NK cells, monocytes, and granulocytes in human whole blood compared to an isotype control. Isotype control 1 was an unrelated human IgG1 antibody with an irrelevant CDR. Isotype control 2 was the same as isotype control 1 but contained substitutions in the Fc region (to increase affinity for Fc γ R) as some of the selected SIRP γ antibodies. Up to 50 μ g/mL fluorescent dye-conjugated antibodies or isotype controls were incubated with whole blood from three normal donors. T-cells were identified as the CD14 $^{-}$, CD20 $^{-}$, SSClow, and CD3 $^{+}$ population or further identified to be CD4 $^{+}$ or CD8 $^{+}$ populations. B-cells were identified as the CD14 $^{-}$, SSClow, and CD20 $^{+}$ population. NK cells were identified as CD14 $^{-}$, CD20 $^{-}$, CD3 $^{-}$, and CD56 $^{+}$. Monocytes were identified as the SSClow and CD14 $^{+}$ population. Granulocytes were identified as the CD14 $^{-}$, CD20 $^{-}$, CD3 $^{-}$, SSChigh population. Graphs depict the median fluorescence intensity (MFI) of each population.

[00533] A commercially available mouse monoclonal antibody against human SIRP γ (clone OX-119 from ThermoFisher Scientific, catalogue number MA5-28215) was tested for binding to naïve T-cells and to stimulated T-cells via flow cytometry. To stimulate or activate T-cells, anti-human CD3 and anti-human CD28 were incubated with naïve resting CD3 $^{+}$, CD4 $^{+}$, or CD8 $^{+}$ T-cells from individual healthy human donors or cynomolgus monkeys for 7 days in the presence of IL-2. A titration of the commercially available antibody was added to the stimulated cells and to naïve T-cells from the same donors. FIG. 4A shows the binding curves of the mouse monoclonal antibody to the stimulated CD3 $^{+}$, CD4 $^{+}$, and CD8 $^{+}$ T-cells compared to the naïve T-cells. The antibody exhibited increased binding to activated (stimulated) T-cells, indicating an increase in expression of SIRP γ on activated T-cells. Similarly, select antibodies from Example 2 were assessed for binding to naïve and stimulated human and cynomolgus monkey T-cells. FIGS. 4B-4C show the binding curves of the human monoclonal antibodies to the stimulated human and cynomolgus monkey CD3 $^{+}$ T-cells compared to the naïve T-cells.

[00534] Selected antibodies were tested for binding to several subpopulations of unstimulated T-cells and of stimulated T-cells, via flow cytometry. To stimulate or activate T-cells, anti-human CD3 and anti-human CD28-coated beads were incubated with CD3⁺ T-cells from individual healthy human donors in the presence of IL-2. Activation beads were removed after 3 days. The cells were stained for multiple T-cell subpopulation markers including but not limited to CD3, CD4, CD8, CD69, CD25, and PD-1 at multiple time points for 16 days. A saturating 20 µg/mL of selected SIRP γ antibody was used. Antibodies 83, 84, 85, 86, 88, 89, 90, 92, 94, 95, 96, and 97 exhibited increased binding to stimulated T-cells when compared to unstimulated T-cells. Antibody 84 preferentially bound to CD8⁺ T-cells when compared to CD4⁺ T-cells. Antibody 84 preferentially bound to CD69⁺/CD8⁺ T-cells and CD25⁺/CD8⁺ T-cells when compared to CD69⁻/CD8⁺ T-cells and CD25⁻/CD8⁺ T-cells. Antibodies 85, 89, 95, and 97 preferentially bound to PD1⁺ T-cells when compared to PD1⁻ T-cells.

[00535] Selected antibodies were tested for binding to stably transfected human SIRP γ , SIRP α V1, or SIRP β 1 (co-transfected with DAP12) Chinese hamster ovary (CHO) cells via flow cytometry. A titration of select antibodies was added to the cells and detected using a fluorescently labelled secondary anti-rat IgG antibody or anti-human IgG antibody. Graphs depict the median fluorescence intensity (MFI) at each concentration. FIGS. 5A and 5G show the binding curves of select antibodies to human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α , cynomolgus monkey SIRP α , human SIRP β 1, or cynomolgus monkey SIRP β 1-expressing CHO cells detected using an anti-rat IgG antibody. FIGS. 5B-5F and 5H-5L show the binding curves of select antibodies to human SIRP γ , cynomolgus monkey SIRP γ , human SIRP α , cynomolgus monkey SIRP α , human SIRP β 1, or cynomolgus monkey SIRP β 1-expressing CHO cells detected using an anti-human IgG antibody. Isotype control 1 was an unrelated human IgG1 antibody with irrelevant CDRs (non- SIRP γ -binding) containing the same amino acid substitutions in the Fc region as some of the selected SIRP γ antibodies for increased Fc γ R binding. Isotype control 2 was the same as isotype control 1 but contained no mutations in the Fc region. For select antibodies, each myc-tagged SIRP γ scFv antibody as crude PPE was incubated with each of the SIRP-expressing cell lines stated above along with the parental CHO-K1 cell line. Table 8 below shows MFI fold change values when compared to the parental non-transfected CHO cells for the scFv antibodies using the 6 SIRP-expressing cell lines and detected using anti-myc antibody. Fold change value < 2.0 is considered a non-binder. The

SIRP γ antibodies exhibited in FIGS. 5A-5L and in Table 8 show preferential binding to human and cynomolgus monkey SIRP γ .

Table 8: MFI Fold Change Values Over Binding to Parental CHO Cells for scFv Clones

Antibody No.	Human SIRP γ CHO	Cyno SIRP γ CHO	Human SIRP α V1 CHO	Cyno SIRP α CHO	Human SIRP β 1 CHO	Cyno SIRP β 1 CHO
9	10.36	6.87	1.14	1.87	0.99	1.34
10	38.26	23.12	1.62	1.87	1.09	1.37
11	3.98	6.18	1.01	1.89	0.87	1.41
12	10.67	5.94	1.18	1.93	1.26	1.36
13	7.06	5.22	1.02	1.88	0.89	1.74
14	19.59	17.96	1.15	1.93	1.09	1.38
15	17.03	3.71	1.06	1.91	0.91	1.39
16	33.03	16.32	1.04	1.92	0.86	1.38
17	28.27	30.06	1.20	1.98	1.46	1.42
18	25.16	16.16	1.04	1.96	0.90	1.38
19	43.29	36.65	1.04	2.01	0.93	1.40
20	8.87	10.49	1.05	1.76	0.89	1.29
21	51.35	96.14	1.14	1.74	0.99	1.27
22	3.17	8.24	1.01	1.65	0.84	1.20
23	21.63	16.47	0.99	1.72	0.97	1.40
24	11.10	9.85	1.07	1.82	1.01	1.28
25	19.46	10.35	1.17	1.24	1.33	1.03
26	28.39	40.02	1.08	1.30	1.23	1.05
27	23.25	5.81	1.18	1.32	1.32	1.06
28	46.46	24.02	1.46	1.29	1.26	1.06
29	11.44	13.01	1.16	1.26	1.33	1.11
30	5.94	3.76	1.54	1.28	1.57	1.05
31	18.05	21.31	1.20	1.29	1.25	1.02
32	10.24	9.63	1.10	1.23	1.28	1.02
33	20.00	8.02	1.19	1.25	1.74	1.01
34	18.71	11.96	1.15	1.27	1.31	1.04
35	18.28	12.83	1.13	1.32	1.32	1.08
36	42.44	37.70	1.17	1.34	1.34	1.05
37	31.06	15.49	1.61	1.61	1.55	1.29
38	14.81	16.68	1.13	1.16	1.31	1.37
39	16.36	39.55	1.09	1.15	1.24	1.39
40	15.43	15.33	1.16	1.24	1.40	1.46
41	25.48	36.06	1.09	1.42	1.16	1.53
42	15.90	14.49	1.00	1.44	1.05	1.54

Antibody No.	Human SIRP γ CHO	Cyno SIRP γ CHO	Human SIRP α V1 CHO	Cyno SIRP α CHO	Human SIRP β 1 CHO	Cyno SIRP β 1 CHO
43	41.24	22.74	1.06	1.49	1.07	1.58
44	16.02	26.70	1.00	1.50	1.06	1.58
45	24.26	18.19	1.63	1.46	1.55	1.53
46	13.07	16.01	1.01	1.49	1.09	1.53
47	17.33	14.17	1.03	1.43	1.13	1.53
48	12.08	9.25	1.00	1.51	1.08	1.53
49	18.63	18.34	1.14	1.49	1.21	1.52
50	12.84	30.83	1.03	1.53	1.19	1.60
51	20.02	18.83	1.02	1.51	1.16	1.61
52	14.72	16.33	1.00	1.52	1.12	1.63
53	5.97	6.94	1.05	1.57	1.07	1.60

Example 5: Effect of SIRP γ Antibodies on ADCC

[00536] Antibody-dependent cellular cytotoxicity (ADCC) induced by selected SIRP γ antibodies on primary human resting and activated T-cells were evaluated. SIRP γ expressing-human primary resting T-cells (target) cells were incubated with a reporter cell line (effector) expressing Fc γ RIIIa at an effector-cell to target-cell ratio of 8:1 for 6 hours at 37°C. Following Fc γ RIIIa engagement with the Fc region of a relevant SIRP γ antibody bound to a target cell, these effector cells would transduce intracellular signals resulting in NFAT-mediated luciferase activity. This activity was read as luminescence signal on a plate reader and would be proportional to Fc γ RIIIa engagement. To activate T-cells, anti-CD3 and anti-CD28 were preincubated with resting T-cells for 7 days. The same protocol as above was then followed to measure Fc γ RIIIa engagement. FIGS. 6A-6C shows the luminescence fold of ADCC induction of a titration of selected antibodies over no antibody condition for human CD3⁺ T-cells. The results are presented as compared to isotype controls. Isotype control 1 was an unrelated human IgG4 antibody with an irrelevant CDR. Isotype control 2 was an unrelated human IgG1 antibody with an irrelevant CDR. Isotype control 3 was the same as isotype control 2 but contained the same high affinity substitutions (to increase affinity for Fc γ R) in the Fc region as some of the selected SIRP γ antibodies. Table 9 below shows the half maximal effective concentration (EC₅₀) of selected antibodies when a 4-parameter logistic non-linear regression curve fit is applied.

[00537] ADCC induced by selected SIRP antibodies on primary human T-cells (target) were evaluated using primary NK cells as effector cells. The target cells were loaded with CellTracker™ Green, washed, and exposed to SIRP antibodies at various concentrations. Then, the target cells were incubated human NK (effector) cells at an effector-cell to target-cell ratio of 2:1 for 4 hours at 37°C. Samples were stained with Zombie Violet dye and analyzed via flow cytometry. Activated T-cells were generated using the same stimulation protocol as above. %ADCC was calculated as the percent of cells positive for Zombie Violet dye with respect to total cells positive for CellTracker™ Green. The graphs in FIGS. 6B –6C depict the average of three target cell donors normalized to an internal positive control antibody. The ADCC effect is antibody-dose dependent. The results are presented as compared to isotype controls.

Table 9: EC₅₀ Values of Antibodies in ADCC of CD3+ T-cells

Antibody No.	Resting T-cells EC ₅₀ (μg/mL)	Stimulated T-cells EC ₅₀ (μg/mL)
3	NC	NC
4	0.7162	0.355
5	0.09366	0.01818
6	0.0027	0.00153
7	NC	NC
8	NC	NC
Isotype Control 1	NC	NC
Isotype Control 2	NC	NC
Isotype Control 3	NC	NC

NC = not calculable

Example 6: Effect of SIRP γ Antibodies on ADCP

[00538] The antibody-dependent cellular phagocytosis (ADCP) induced by selected SIRP γ antibodies on primary human resting and activated T-cells were evaluated in the same way as Example 5 using a reporter cell line (effector) expressing Fc γ RIIa at an effector-cell to target-cell ratio of 4:1. FIG. 7 shows the luminescence fold of ADCP induction of a titration of selected antibodies over no antibody condition for human CD3+ T-cells. The results are presented as compared to isotype controls. Isotype control 1 was an unrelated IgG4 antibody with an

irrelevant CDR. Isotype control 2 was an unrelated IgG1 antibody with an irrelevant CDR. Isotype control 3 was the same as isotype control 2 but contained the same high affinity substitutions (to increase affinity for Fc γ R) in the Fc region as some of the selected SIRP γ antibodies.

Example 7: Determination of SIRP γ Antibody Competition with CD47 for Binding to SIRP γ

[00539] ELISA analyses were performed to assess whether selected SIRP γ antibodies of the disclosure compete with CD47-Fc for binding to hSIRP γ . To carry out the competition experiment, the extracellular binding domain of SIRP γ was coated onto a high protein-binding plate and blocked. A titration of each SIRP γ antibody was incubated on the plate for 1 hour. Biotinylated CD47-Fc at a concentration of 10 μ g/mL was next added and allowed to equilibrate for 1 hour. Following a wash, streptavidin-HRP was added. The plate was washed again and developed using a chemiluminescent substrate. The plate was read on a plate reader to assess luminescence. Isotype control 1 was an unrelated human IgG1 antibody with irrelevant CDRs containing the same amino acid substitutions in the Fc region as some of the selected SIRP γ antibodies and was used as a negative control. Isotype control 2 was the same as isotype control 1 but contained no mutations in the Fc region. A known blocker antibody was used as a positive control. FIGS. 8A-8B shows a subset of antibodies with no effect on CD47/SIRP γ binding (Antibodies 5, 6, 8, 59, 73, 80, 85, 92, and 96), a second set promoted CD47/SIRP γ binding (Antibodies 3, 4, and 7), while the rest inhibited CD47/SIRP γ binding.

Example 8: Effect of SIRP γ Antibodies on T-Cell Proliferation

[00540] The effect of select SIRP γ antibodies on T-cell proliferation was assessed via one-way mixed lymphocyte reaction (MLR). Monocytes were isolated from PBMCs of a healthy individual and differentiated into dendritic cells (moDC). CD3⁺ T-cells were isolated from a different healthy individual and labeled with a dye used to track cell proliferation (CFSE). The moDCs and T-cells were cocultured with a titration of select antibodies, up to 100 μ g/mL, for 7 days. The cells were then analyzed via flow cytometry. Percent proliferation (% Proliferation) is calculated as the % CD3⁺ T-cells that had a loss in CFSE dye signal, indicating proliferation. FIG. 9 depicts % Proliferation with respect to antibody concentration. In addition to select SIRP γ

antibodies generated from Example 1 and Example 2, a human SIRP γ antibody with mouse Fc (clone LSB2.20), a human CD47 antibody with mouse Fc (clone B6H12), and two human SIRP α antibodies (clones 18F21A and 17F07A) were tested. Results are compared to isotype control antibodies. Isotype control 1 was a human IgG1 antibody with an unrelated CDR containing the same amino acid substitutions in the Fc region to reduce Fc γ R binding as some select SIRP γ antibodies. Isotype control 2 was a mouse IgG1 antibody with an unrelated CDR. Only the CD47 antibody demonstrated inhibition of T-cell proliferation.

Example 9: Effect of SIRP γ Antibodies on in vivo Depletion of Selected Cell Types

[00541] The effect of select SIRP γ antibodies on the depletion of CD3⁺ T cells was evaluated in vivo using 8-10 week old, female NSG-Tg (Hu-IL15) mice. Mice were administered select SIRP γ antibodies or isotype control, intraperitoneally at a dose of 30 mg/kg, 30 minutes prior to transfer of human PBMC and stimulated T-cells. T-cells were stimulated by adding human anti-CD3 and anti-CD28 antibody-coated beads to isolated CD3⁺ human T-cells for 5-7 days in the presence of IL-2. Stimulation beads were removed at day 3. Stimulated T-cells were dyed with CellTrackerTM prior to injection. Mice were injected with 1.00E+07 human PBMCs and 5.00E+06 stimulated T-cells intravenously via single tail vein injection. Mice were euthanized 3 days post cell transfer. Whole blood was obtained via cardiac puncture and collected in EDTA blood collection tubes. Whole blood was lysed with RBC lysis buffer, washed, and blocked with both human and mouse Fc blocker. Cells were washed again and resuspended in an antibody cocktail mix diluted to suitable concentrations. Staining cocktail mix included anti-human CD45, anti-mouse CD45, anti-human CD3, and live/dead cell marker. Cells were analyzed via flow cytometry. FIG. 10 depicts % live human CD3⁺ T-cells detected (left panel). Additional analysis separated the detection of stimulated and unstimulated human CD3⁺ T-cells (right panel). Data in FIG. 10 (left panel) are normalized to number of live human CD3⁺ T cells detected in mice treated with isotype control. The selected SIRP γ antibodies induced depletion of human CD3⁺ T-cells when compared to isotype control treatment. Further analyses of CellTrackerTM dyed cells (i.e. – Stimulated cells) show that stimulated cells were preferentially depleted compared to unstimulated cells (FIG. 10, right panel).

CLAIMS

What is claimed is:

1. An Fc-containing antibody that is specific for SIRP γ , wherein the antibody has low or no affinity for binding SIRP α and SIRP β 1, and wherein binding of the antibody to a SIRP γ -expressing cell induces effector-mediated depletion of the SIRP γ -expressing cell.
2. The antibody of claim 1, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.
3. The antibody of claim 2, wherein the SIRP γ -expressing cell is a T-cell.
4. The antibody of claim 3, wherein the SIRP γ -expressing cell is a stimulated (activated) T-cell.
5. The antibody of claim 3, wherein the SIRP γ -expressing cell is an exhausted T-cell.
6. The antibody of claim 3, wherein the T-cell is a naïve, activated, central memory, effector memory, or terminal effector memory cell.
7. The antibody of claim 3, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell, an alpha beta T-cell, or a gamma delta T-cell.
8. The antibody of claim 3, wherein the T-cell is a Th1 cell, Th2 cell, Th17 cell or T follicular helper cell.
9. The antibody of claim 3, wherein the T-cell is a CD3⁺ T-cell, CD4⁺ T-cell, CD8⁺ T-cell, CD25⁺ T-cell, CD69⁺ T-cell, and/or PD1⁺ T-cell.
10. The antibody of claim 3, wherein the T-cell is a CD4⁺/CD8⁺ T-cell.
11. The antibody of claim 3, wherein the T-cell is a CD69⁺/CD8⁺ T-cell.
12. The antibody of claim 3, wherein the T-cell is a CD25⁺/CD8⁺ T-cell.
13. The antibody of claim 3, wherein the T-cell is a PD1⁺ T-cell.
14. The antibody of claim 3, wherein the binding of the antibody to a SIRP γ -expressing cell is preferential for a stimulated T-cell, as compared to an unstimulated T-cell.
15. The method of claim 14, wherein the preferential binding exhibited is at least 1.5-fold preferential binding.

16. The antibody of claim 3, wherein the binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a T-cell.
17. The method of claim 16, wherein the preferential effector-mediated depletion exhibited is at least 1.5-fold preferential effector-mediated depletion.
18. The antibody of claim 3, wherein the binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a stimulated T-cell.
19. The antibody of claim 3, wherein the binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of an exhausted T-cell.
20. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺ T-cell.
21. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD4⁺ T-cell.
22. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell.
23. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell.
24. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.
25. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.
26. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.

27. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.
28. The antibody of claim 9, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing PD1⁺ T-cell, when compared to a SIRP γ -expressing PD1⁻ T-cell.
29. The antibody of claim 2, wherein the SIRP γ -expressing cell is a B-cell.
30. The antibody of claim 2, wherein the SIRP γ -expressing cell is an NK-cell.
31. The antibody of any one of claims 1-30, wherein the SIRP γ -expressing cell is stimulated (activated).
32. The antibody of any one of claims 1-30, wherein the SIRP γ -expressing cell is exhausted.
33. The antibody of any one of claims 1-32, wherein the antibody preferentially depletes certain SIRP γ -expressing cells as a result of an increase the expression of certain SIRP γ isoforms.
34. The antibody of any one of claims 1-32, wherein the antibody preferentially depletes activated (stimulated) cells as a result of an increase in surface SIRP γ expression compared to unactivated (unstimulated) cells.
35. The antibody of any one of claims 1-34, wherein the cell depletion involves antibody dependent cellular phagocytosis (ADCP).
36. The antibody of any one of claims 1-34, wherein the cell depletion involves antibody dependent cellular cytotoxicity (ADCC).
37. The antibody of any one of claims 1-34, wherein the cell depletion involves complement dependent cytotoxicity (CDC).
38. The antibody of any one of claims 1-37, wherein the antibody comprises the CDR amino acid sequences of any one of the combinations of Table 1, as presented in claim 50.
39. The antibody of any one of claims 1-38, wherein the antibody comprises the VH and VL amino acid sequences of any one of the combinations of Table 2, or comprises a sequence having at least 70% sequence identity thereto, as presented in claim 51.

40. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to an activated (stimulated) T-cell, as compared to an unstimulated T-cell.
41. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺ T-cell.
42. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD4⁺ T-cell.
43. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD69⁺ T-cell.
44. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD25⁺ T-cell.
45. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.
46. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.
47. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.
48. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a CD8⁺/CD25⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.
49. A SIRP γ antibody that has low or no affinity for binding SIRP α and SIRP β 1, and wherein the antibody exhibits preferential binding to a PD1⁺ T-cell, when compared to a SIRP γ -expressing PD1⁻ T-cell.

50. A SIRP γ -specific antibody:

- (a) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 100, SEQ ID NO: 138, SEQ ID NO: 167; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 209, SEQ ID NO: 245, and SEQ ID NO: 277;
- (b) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 101, SEQ ID NO: 139, SEQ ID NO: 168; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 210, SEQ ID NO: 246, and SEQ ID NO: 278;
- (c) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 102, SEQ ID NO: 140, SEQ ID NO: 169; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 211, SEQ ID NO: 247, and SEQ ID NO: 279;
- (d) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 103, SEQ ID NO: 141, SEQ ID NO: 170; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 212, SEQ ID NO: 248, and SEQ ID NO: 280;
- (e) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 104, SEQ ID NO: 141, SEQ ID NO: 171; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 213, SEQ ID NO: 249, and SEQ ID NO: 281;
- (f) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 105, SEQ ID NO: 142, SEQ ID NO: 172; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 214, SEQ ID NO: 250, and SEQ ID NO: 282;
- (g) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 143, SEQ ID NO: 173; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 215, SEQ ID NO: 251, and SEQ ID NO: 283;
- (h) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 144, SEQ ID NO: 174; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 216, SEQ ID NO: 252, and SEQ ID NO: 284;

- (i) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 107, SEQ ID NO: 141, SEQ ID NO: 175; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 217, SEQ ID NO: 253, and SEQ ID NO: 285;
- (j) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 108, SEQ ID NO: 144, SEQ ID NO: 176; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 216, SEQ ID NO: 254, and SEQ ID NO: 286;
- (k) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 109, SEQ ID NO: 145, SEQ ID NO: 171; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 218, SEQ ID NO: 255, and SEQ ID NO: 287;
- (l) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 110, SEQ ID NO: 146, SEQ ID NO: 177; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 219, SEQ ID NO: 249, and SEQ ID NO: 288;
- (m) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 111, SEQ ID NO: 147, SEQ ID NO: 178; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 220, SEQ ID NO: 256, and SEQ ID NO: 289;
- (n) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 112, SEQ ID NO: 148, SEQ ID NO: 179; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 213, SEQ ID NO: 249, and SEQ ID NO: 290;
- (o) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 113, SEQ ID NO: 143, SEQ ID NO: 180; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 221, SEQ ID NO: 257, and SEQ ID NO: 291;
- (p) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 149, SEQ ID NO: 181; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 222, SEQ ID NO: 258, and SEQ ID NO: 292;
- (q) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 114, SEQ ID NO: 150, SEQ ID NO: 182; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 223, SEQ ID NO: 250, and SEQ ID NO: 293;

- (r) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 115, SEQ ID NO: 151, SEQ ID NO: 183; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 219, SEQ ID NO: 259, and SEQ ID NO: 294;
- (s) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 116, SEQ ID NO: 152, SEQ ID NO: 184; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 224, SEQ ID NO: 260, and SEQ ID NO: 295;
- (t) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 117, SEQ ID NO: 153, SEQ ID NO: 185; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 216, SEQ ID NO: 261, and SEQ ID NO: 296;
- (u) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 118, SEQ ID NO: 143, SEQ ID NO: 186; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 222, SEQ ID NO: 262, and SEQ ID NO: 297;
- (v) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 119, SEQ ID NO: 154, SEQ ID NO: 187; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 225, SEQ ID NO: 250, and SEQ ID NO: 298;
- (w) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 120, SEQ ID NO: 140, SEQ ID NO: 188; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 226, SEQ ID NO: 263, and SEQ ID NO: 299;
- (x) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 121, SEQ ID NO: 141, SEQ ID NO: 189; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 227, SEQ ID NO: 264, and SEQ ID NO: 300;
- (y) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 122, SEQ ID NO: 155, SEQ ID NO: 190; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 228, SEQ ID NO: 249, and SEQ ID NO: 301;
- (z) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 123, SEQ ID NO: 143, SEQ ID NO: 186; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 229, SEQ ID NO: 265, and SEQ ID NO: 302;

- (aa) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 124, SEQ ID NO: 143, SEQ ID NO: 191; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 216, SEQ ID NO: 266, and SEQ ID NO: 303;
- (ab) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 156, SEQ ID NO: 192; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 230, SEQ ID NO: 249, and SEQ ID NO: 304;
- (ac) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 145, SEQ ID NO: 193; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 231, SEQ ID NO: 267, and SEQ ID NO: 305;
- (ad) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 125, SEQ ID NO: 143, SEQ ID NO: 194; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 232, SEQ ID NO: 268, and SEQ ID NO: 306;
- (ae) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 126, SEQ ID NO: 157, SEQ ID NO: 195; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 233, SEQ ID NO: 269, and SEQ ID NO: 307;
- (af) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 127, SEQ ID NO: 155, SEQ ID NO: 196; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 234, SEQ ID NO: 249, and SEQ ID NO: 308;
- (ag) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 128, SEQ ID NO: 158, SEQ ID NO: 197; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 235, SEQ ID NO: 270, and SEQ ID NO: 309;
- (ah) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 129, SEQ ID NO: 159, SEQ ID NO: 198; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 226, SEQ ID NO: 271, and SEQ ID NO: 310;
- (ai) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 106, SEQ ID NO: 143, SEQ ID NO: 199; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 236, SEQ ID NO: 272, and SEQ ID NO: 311;

(aj) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 130, SEQ ID NO: 155, SEQ ID NO: 200; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 237, SEQ ID NO: 249, and SEQ ID NO: 312;

(ak) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 131, SEQ ID NO: 141, SEQ ID NO: 201; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 238, SEQ ID NO: 264, and SEQ ID NO: 313;

(al) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 132, SEQ ID NO: 140, SEQ ID NO: 202; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 239, SEQ ID NO: 273, and SEQ ID NO: 314;

(am) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 109, SEQ ID NO: 143, SEQ ID NO: 203; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 240, SEQ ID NO: 250, and SEQ ID NO: 315;

(an) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 133, SEQ ID NO: 160, SEQ ID NO: 191; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 241, SEQ ID NO: 274, and SEQ ID NO: 316;

(ao) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 134, SEQ ID NO: 161, SEQ ID NO: 204; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 242, SEQ ID NO: 275, and SEQ ID NO: 317;

(ap) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 135, SEQ ID NO: 162, SEQ ID NO: 189; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 216, SEQ ID NO: 249, and SEQ ID NO: 318;

(aq) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 129, SEQ ID NO: 155, SEQ ID NO: 205; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 226, SEQ ID NO: 276, and SEQ ID NO: 319;

(ar) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 131, SEQ ID NO: 163, SEQ ID NO: 206; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 219, SEQ ID NO: 267, and SEQ ID NO: 320;

(as) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 136, SEQ ID NO: 164, SEQ ID NO: 207; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 243, SEQ ID NO: 249, and SEQ ID NO: 321;

(at) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 131, SEQ ID NO: 165, SEQ ID NO: 208; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 213, SEQ ID NO: 269, and SEQ ID NO: 322; or

(au) comprising the three VL CDRs of amino acid sequences of SEQ ID NO: 137, SEQ ID NO: 166, SEQ ID NO: 169; and/or comprising the three VH CDRs of amino acid sequences of SEQ ID NO: 244, SEQ ID NO: 256, and SEQ ID NO: 323.

51. An antibody, wherein:

- (a) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 324 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 371, or an amino acid sequence with at least 70% sequence identity thereto;
- (b) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 325 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 372, or an amino acid sequence with at least 70% sequence identity thereto;
- (c) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 326 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 373, or an amino acid sequence with at least 70% sequence identity thereto;
- (d) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 327 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 374, or an amino acid sequence with at least 70% sequence identity thereto;
- (e) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 328 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of

the antibody comprises the amino acid sequence of SEQ ID NO: 375, or an amino acid sequence with at least 70% sequence identity thereto;

(f) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 329 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 376, or an amino acid sequence with at least 70% sequence identity thereto;

(g) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 330 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 377, or an amino acid sequence with at least 70% sequence identity thereto;

(h) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 331 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 378, or an amino acid sequence with at least 70% sequence identity thereto;

(i) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 332 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 379, or an amino acid sequence with at least 70% sequence identity thereto;

(j) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 333 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 380, or an amino acid sequence with at least 70% sequence identity thereto;

(k) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 334 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 381, or an amino acid sequence with at least 70% sequence identity thereto;

(l) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 335 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of

the antibody comprises the amino acid sequence of SEQ ID NO: 382, or an amino acid sequence with at least 70% sequence identity thereto;

(m) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 336 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 383, or an amino acid sequence with at least 70% sequence identity thereto;

(n) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 337 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 384, or an amino acid sequence with at least 70% sequence identity thereto;

(o) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 338 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 385, or an amino acid sequence with at least 70% sequence identity thereto;

(p) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 339 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 386, or an amino acid sequence with at least 70% sequence identity thereto;

(q) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 340 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 387, or an amino acid sequence with at least 70% sequence identity thereto;

(r) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 341 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 388, or an amino acid sequence with at least 70% sequence identity thereto;

(s) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 342 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of

the antibody comprises the amino acid sequence of SEQ ID NO: 389, or an amino acid sequence with at least 70% sequence identity thereto;

(t) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 343 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 390, or an amino acid sequence with at least 70% sequence identity thereto;

(u) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 344 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 391, or an amino acid sequence with at least 70% sequence identity thereto;

(v) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 345 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 392, or an amino acid sequence with at least 70% sequence identity thereto;

(w) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 346 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 393, or an amino acid sequence with at least 70% sequence identity thereto;

(x) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 347 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 394, or an amino acid sequence with at least 70% sequence identity thereto;

(y) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 348 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 395, or an amino acid sequence with at least 70% sequence identity thereto;

(z) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 349 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of

the antibody comprises the amino acid sequence of SEQ ID NO: 396, or an amino acid sequence with at least 70% sequence identity thereto;

(aa) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 350 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 397, or an amino acid sequence with at least 70% sequence identity thereto;

(ab) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 351 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 398, or an amino acid sequence with at least 70% sequence identity thereto;

(ac) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 352 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 399, or an amino acid sequence with at least 70% sequence identity thereto;

(ad) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 353 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 400, or an amino acid sequence with at least 70% sequence identity thereto;

(ae) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 354 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 401, or an amino acid sequence with at least 70% sequence identity thereto;

(af) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 355 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 402, or an amino acid sequence with at least 70% sequence identity thereto;

(ag) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 356 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL

of the antibody comprises the amino acid sequence of SEQ ID NO: 403, or an amino acid sequence with at least 70% sequence identity thereto;

(ah) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 357 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 404, or an amino acid sequence with at least 70% sequence identity thereto;

(ai) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 358 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 405, or an amino acid sequence with at least 70% sequence identity thereto;

(aj) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 359 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 406, or an amino acid sequence with at least 70% sequence identity thereto;

(ak) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 360 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 407, or an amino acid sequence with at least 70% sequence identity thereto;

(al) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 361 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 408, or an amino acid sequence with at least 70% sequence identity thereto;

(am) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 362 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 409, or an amino acid sequence with at least 70% sequence identity thereto;

(an) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 363 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL

of the antibody comprises the amino acid sequence of SEQ ID NO: 410, or an amino acid sequence with at least 70% sequence identity thereto;

(ao) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 364 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 411, or an amino acid sequence with at least 70% sequence identity thereto;

(ap) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 365 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 412, or an amino acid sequence with at least 70% sequence identity thereto;

(aq) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 366 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 413, or an amino acid sequence with at least 70% sequence identity thereto;

(ar) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 367 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 414, or an amino acid sequence with at least 70% sequence identity thereto;

(as) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 368 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 415, or an amino acid sequence with at least 70% sequence identity thereto;

(at) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 369 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL of the antibody comprises the amino acid sequence of SEQ ID NO: 416, or an amino acid sequence with at least 70% sequence identity thereto; or

(au) the VH domain of the antibody comprises the amino acid sequence of SEQ ID NO: 370 or an amino acid sequence with at least 70% sequence identity thereto; and/or the VL

of the antibody comprises the amino acid sequence of SEQ ID NO: 417, or an amino acid sequence with at least 70% sequence identity thereto.

52. The antibody of any one of claims 1-51, wherein the antibody is an antibody fragment.
53. The antibody of any one of claims 1-52, wherein the antibody is a human antibody.
54. The antibody of any one of claims 1-52, wherein the antibody is a humanized antibody.
55. The antibody of any one of claims 1-52, wherein the antibody is a chimeric antibody.
56. The antibody of any one of claims 1-52, wherein the antibody is a full-length antibody.
57. The antibody of any one of claims 1-56, wherein the antibody comprises a Fc domain, and the Fc domain is selected from the group consisting of human IgG1, IgG2, IgG3, and IgG4 heavy chain sequence.
58. The antibody of claim 57, wherein the Fc domain is from the heavy chain IgG amino acid sequences of SEQ ID NO: 5 or SEQ ID NO: 28, optionally with one or more Fc amino acid substitutions.
59. The antibody of claim 58, wherein the Fc domain is from the heavy chain IgG amino acid sequences of any one of SEQ ID NOS: 5-36.
60. The antibody claim 58, wherein the heavy chain Fc domain comprises one or more amino acid substitutions relative to SEQ ID NO: 5 or SEQ ID NO: 28 at a position selected from the group consisting of: 215, 221, 222, 228, 234, 235, 236, 239, 240, 241, 243, 244, 245, 247, 250, 252, 254, 256, 262, 263, 264, 265, 266, 267, 268, 269, 270, 292, 296, 297, 298, 299, 300, 305, 313, 324, 325, 326, 327, 328, 329, 330, 332, 333, 334, 345, 396, 428, 430, 433, 434, and 440 wherein the position numbers of the amino acid residues are of the EU numbering scheme.
61. The antibody of any one of claims 1-60, wherein the antibody comprises a light chain constant region that is from the amino acid sequences of any one of SEQ ID NOS: 38-42.
62. The antibody of any one of claims 1-61, wherein the binding of the antibody does not disrupt the interaction between CD47 and SIRP γ .
63. The antibody of any one of claims 1-61, wherein the binding of the antibody disrupts the interaction between CD47 and SIRP γ .

64. The antibody of any one of claims 1-61, wherein the binding of the antibody stabilizes or promotes the interaction between CD47 and SIRP γ .
65. The antibody of any one of claims 1-61, wherein, the antibody binds human SIRP γ and cynomolgus monkey SIRP γ .
66. The antibody comprising of anyone of claims 1-61, wherein the antibody comprises a binding affinity to SIRP γ lower than about 500 nM.
67. A pharmaceutical composition comprising the antibody of any one of claims 1-66, and optionally a pharmaceutically acceptable carrier.
68. A nucleic acid encoding for the antibody of any one of claims 1-66.
69. A vector comprising the nucleic acid claim 68.
70. A method of inducing the preferential depletion of a population of SIRP γ -expressing cells, the method comprising contacting the population with the antibody of any one of claims 1-66.
71. The method of claim 70, wherein the SIRP γ -expressing cells are T-cells, B-cells and/or NK-cells.
72. The method of claim 70, wherein the SIRP γ -expressing cells are T-cells.
73. The method of claim 72, wherein the T-cells are activated (stimulated).
74. The method of claim 72, wherein the T-cells are activated (stimulated), and the depletion is preferential for activated (stimulated) T-cells.
75. The method of claim 72, wherein the T-cells are exhausted.
76. The method of claim 72, wherein the T-cells are exhausted, and the depletion is preferential for exhausted T-cells.
77. The method of claim 72, wherein the T-cells are naïve, central memory, effector memory, exhausted, or terminal effector memory cells.

78. The method of claim 72, wherein the T-cells are cytotoxic T-cells, helper T-cells, memory T-cells, regulatory T-cells, natural killer T-cells, mucosal associated invariant T-cells, alpha beta T-cells, or gamma delta T-cells.
79. The method of claim 72, wherein the T-cells are Th1 cells, Th2 cells, Th17 cells or T follicular helper cells
80. The method of claim 72, wherein the T-cells are a CD3+ T-cell, CD4+ T-cell, CD8+ T-cell, CD25+ T-cell, CD69+ T-cell, and/or PD1+ T-cell.
81. The method of claim 80, wherein the T-cells are CD4+/CD8+ T-cells.
82. The method of claim 80, wherein the T-cells are CD69+/CD8+ T-cells.
83. The method of claim 80, wherein the T-cells are CD25+/CD8+ T-cells.
84. The method of claim 80, wherein the T-cells are PD1+ T-cells.
85. The method of claim 80, wherein the depletion is preferential for stimulated T-cells, as compared to unstimulated T-cells.
86. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+ T-cells.
87. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD4+ T- cells.
88. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD69+ T- cells.
89. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD25+ T- cells.
90. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+ T-cells, when compared to SIRP γ -expressing CD4+ T- cells.
91. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD4+ T-cells, when compared to SIRP γ -expressing CD8+ T- cells.
92. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD69+ T-cells, when compared to SIRP γ -expressing CD8+/CD69- T- cells.

93. The method of claim 80, wherein the depletion is preferential for SIRP γ -expressing CD8+/CD25+ T-cells, when compared to SIRP γ -expressing CD8+/CD25- T- cells.
94. The method of claim 70, wherein the SIRP γ -expressing cells are B-cells.
95. The method of claim 70, wherein the SIRP γ -expressing cells are NK-cells.
96. The method of any one of claims 70-95, wherein, the SIRP γ -expressing cells are activated.
97. The method of any one of claims 70-96, wherein the method is *in vitro*.
98. The method of any one of claims 70-96, wherein the method is *in vivo*.
99. The method any one of claims 70-98, wherein the population of SIRP γ -expressing cells comprises tissue-resident cells.
100. The method any one of claims 70-99, wherein the population of SIRP γ -expressing cells comprises circulating cells.
101. The method of any one of claims 70-100, wherein the depletion involves one or more of ADCC, ADCP, and CDC.
102. A method of treating a disease or condition in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the antibody of any one of claims 1-66 or the pharmaceutical composition of claim 67.
103. The method of claim 102, wherein the disease or condition involves SIRP γ -expressing cells.
104. The method of claim 103, wherein the SIRP γ -expressing cell is a T-cell, B-cell, or a NK-cell.
105. The method of claim 104, wherein the SIRP γ -expressing cell is a T-cell.
106. The method of claim 105, wherein the T-cell is stimulated (activated).
107. The method of claim 105, wherein the T-cell is exhausted.

- 108.** The method of any one of claims 104-107, wherein the T-cell is a cytotoxic T-cell, helper T-cell, a memory T-cell, a regulatory T-cell, a natural killer T-cell, a mucosal associated invariant T-cell or a gamma delta T-cell.
- 109.** The method of any one of claims 104-107, wherein the T-cell is a naïve, central memory, effector memory, or terminal effector memory cell.
- 110.** The method of any one of claims 104-107, wherein the T-cell is a CD3⁺ T-cell, CD4⁺ T-cell, CD8⁺ T-cell, CD25⁺ T-cell, CD69⁺ T-cell, and/or PD1⁺ T-cell.
- 111.** The method of claim 110, wherein the T-cell is a CD4⁺/CD8⁺ T-cell.
- 112.** The method of claim 110, wherein the T-cell is a CD69⁺/CD8⁺ T-cell.
- 113.** The method of claim 110, wherein the T-cell is a CD25⁺/CD8⁺ T-cell.
- 114.** The method of claim 110, wherein the T-cell is a PD1⁺ T-cell.
- 115.** The method of claim 110, wherein the binding of the antibody is preferential for an stimulated T-cell, as compared to an unstimulated T-cell.
- 116.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺ T-cell.
- 117.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD4⁺ T-cell.
- 118.** The method of claim 110, wherein binding of the antibody to a SIRP γ -expressing cell induces preferential effector-mediated depletion of a SIRP γ -expressing CD8⁺/CD69⁺ T-cell.
- 119.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺/CD25⁺ T-cell.
- 120.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺ T-cell, when compared to a SIRP γ -expressing CD4⁺ T-cell.
- 121.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD4⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺ T-cell.
- 122.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺/CD69⁺ T-cell, when compared to a SIRP γ -expressing CD8⁺/CD69⁻ T-cell.

- 123.** The method of claim 110, wherein binding of the antibody is preferential for a SIRP γ -expressing CD8⁺/CD25⁺ T- cell, when compared to a SIRP γ -expressing CD8⁺/CD25⁻ T-cell.
- 124.** The method of claim 104, wherein the SIRP γ -expressing cell is a B-cell.
- 125.** The method of claim 124, wherein the B-Cell is activated.
- 126.** The method of claim 104, wherein the SIRP γ -expressing cell is an NK-cell.
- 127.** The method of claim 126, wherein the NK-cell is activated.
- 128.** The method of any one of claims 102-127, wherein the disease or condition comprises an autoimmune, oncology, or inflammatory disorder.
- 129.** The method of claim 128, wherein the disease or condition comprises a T-cell-mediated autoimmune disease, T-cell-mediated inflammatory disease, or T-cell-mediated oncology disease.
- 130.** The method of any one of claims 102-127, wherein the disease or condition is driven by CD8⁺ T-cells.
- 131.** The method of any one of claims 102-127, wherein the disease or condition is driven by CD4⁺ T-cells.
- 132.** The method of any one of claims 102-127, wherein the disease or condition is driven by CD8⁺ T-cells and CD4⁺ T-cells.
- 133.** The method of any one of claims 102-132, wherein the disease or condition is selected from: Acute and Chronic eosinophilic pneumonia, Acute disseminated encephalomyelitis, Acute Disseminated Encephalomyelitis, Acute Lymphoblastic Leukemia (ALL), Acute myelogenous leukemia (AML), Addison's disease, Adult-onset Still's disease (AOSD), Aplastic anemia, Ataxia Telangiectasia, Atopic dermatitis, Autoimmune lymphoproliferative syndrome, Axial spondyloarthritis (AxSpA), Birdshot Retinochoroidopathy, Castleman disease, Celiac disease, Chediak-Higashi syndrome, Coronary artery disease /peripheral artery disease, Crohn's Disease, Episodic angioedema with eosinophilia / Gleich syndrome, Giant- Lymphocyte arteritis, Graft failure post-HSCT, Graft vs Host Disease (GvHD), Graves' disease, Hepatosplenic lymphoma, Hypothyroidism, Idiopathic interstitial pneumonias, IgA nephropathy, Inclusion Body Myositis (IBM), Inflammatory bowel disease (IBD), Large granular

lymphocytic leukemia, Lymphocyte-variant hypereosinophilia, Multiple sclerosis, Myelodysplastic syndromes (MDS), Myocarditis, Neuromyelitis optica spectrum disorders, Paraneoplastic syndromes, Primary biliary cholangitis, Primary sclerosing cholangitis, Rasmussen's Encephalitis, Rheumatoid arthritis (RA), Sarcoidosis, Schmidt syndrome / Autoimmune polyendocrine syndrome type II, Stiff Person Syndrome, Susac syndrome, Sympathetic Ophthalmis, Systemic juvenile idiopathic arthritis (sJIA), Systemic Lupus Erythematosus (SLE), T- Lymphocyte mediated rejection of solid organ transplants, T-Cell Prolymphocytic Leukemia (TPLL), Type 1 diabetes, Ulcerative colitis, Uveitis, Vitiligo, X-linked Hyper IgM Syndrome, Autoimmune Hepatitis, and X-linked lymphoproliferative disease.

- 134.** The method of any one of claims 102-133, wherein the subject is human.
- 135.** A cell expressing SIRP γ , wherein the cell bound is to an antibody of any one of claims 1-66, wherein the antibody is bound to the SIRP γ .
- 136.** A kit or article of manufacture comprising an antibody of any one of claims 1-66, or the pharmaceutical composition of claim 67.
- 137.** Use of the antibody of any one of claims 1-66, or the pharmaceutical composition of claim 67 for the treatment of a disease or disorder in a subject in need thereof.
- 138.** Use of the antibody of any one of claims 1-66, or the pharmaceutical composition of claim 67 for the manufacture of a medicament for the treatment of a disease or disorder in a subject in need thereof.

FIG. 1

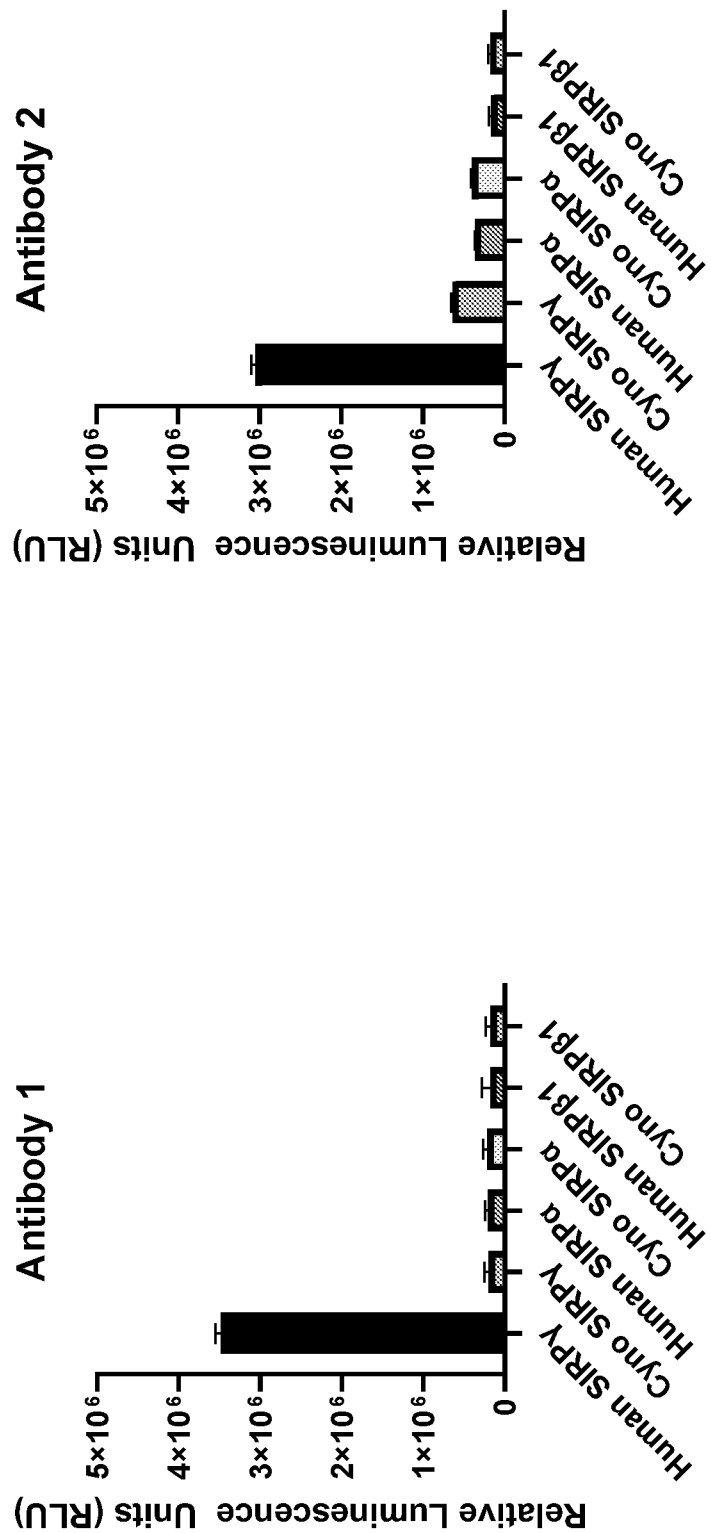


FIG. 2A

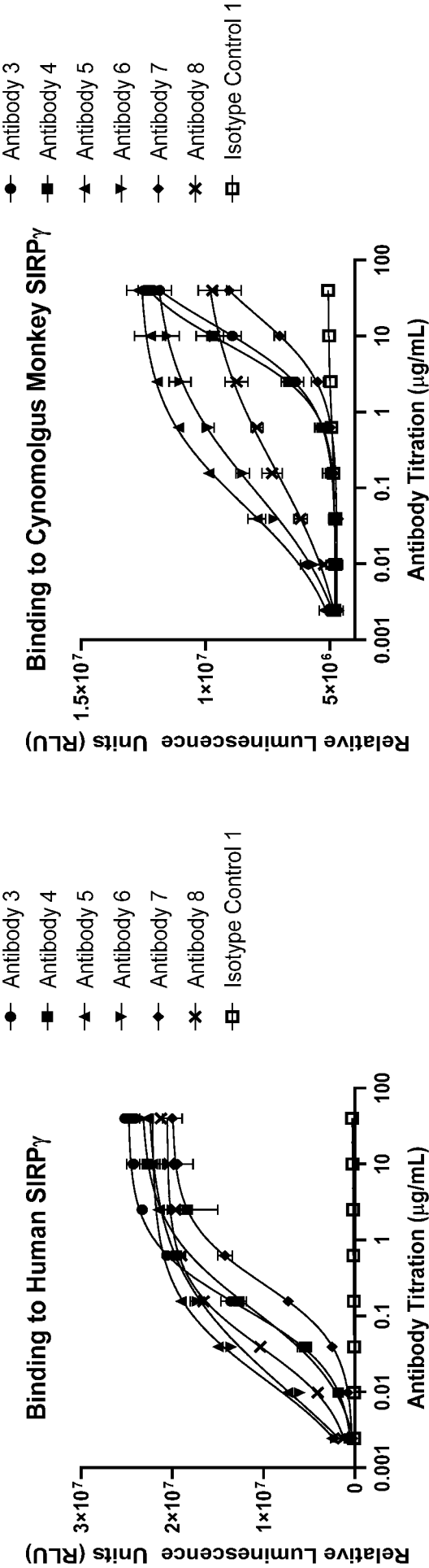


FIG. 2B

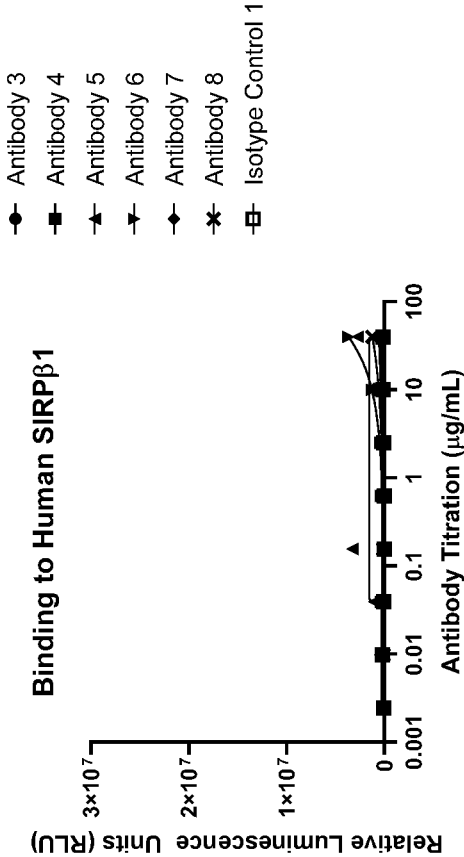
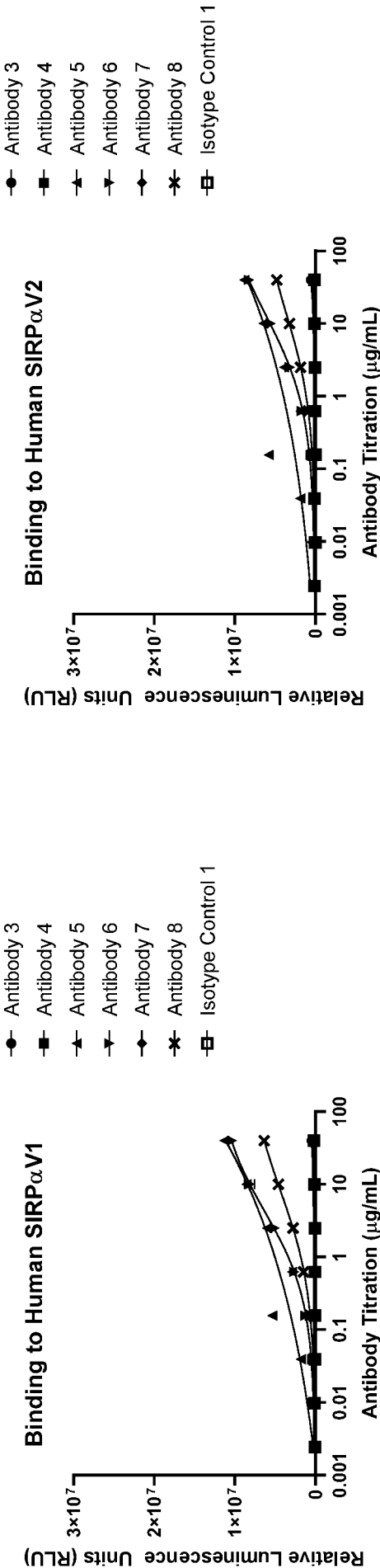


FIG. 2C

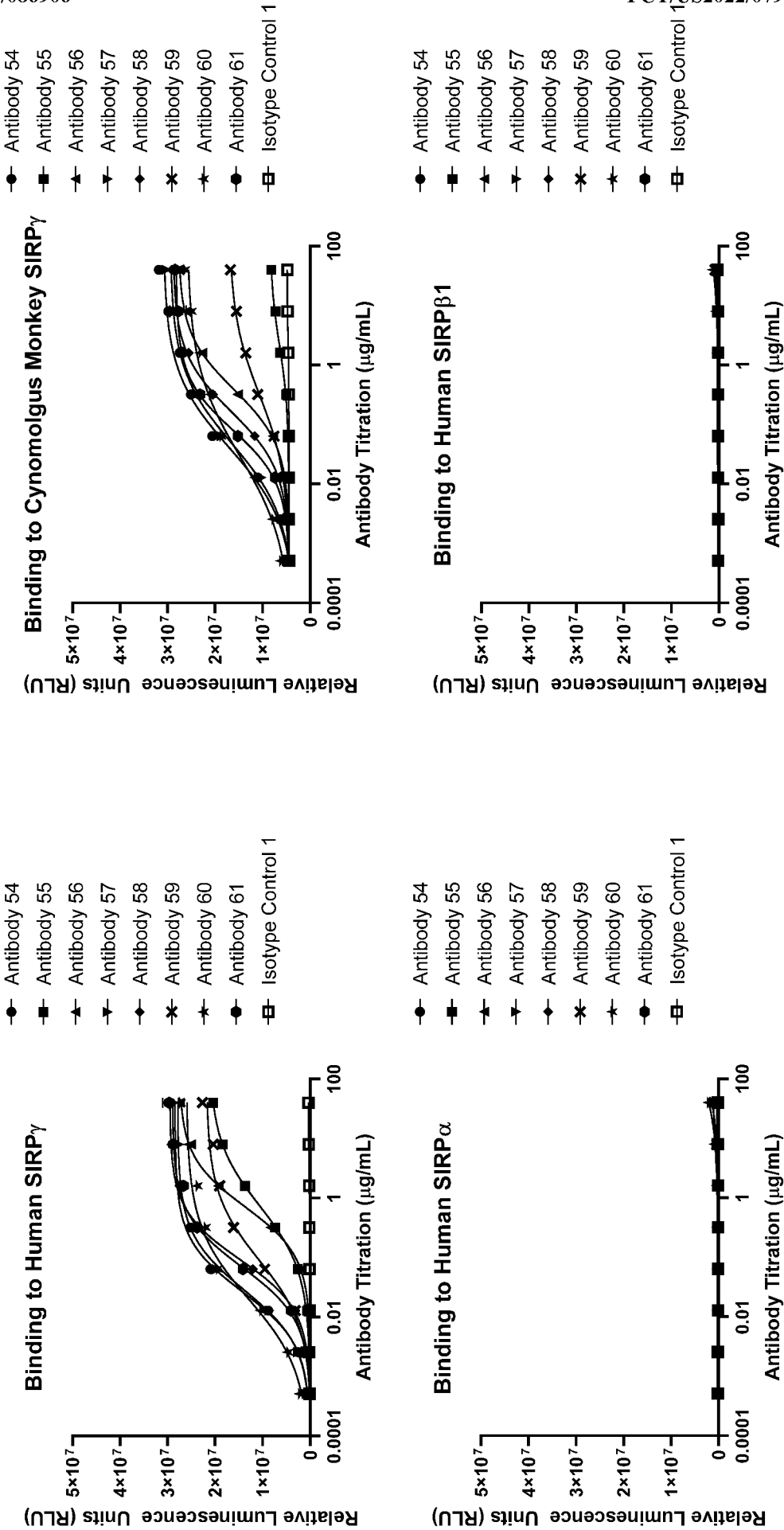


FIG. 2D

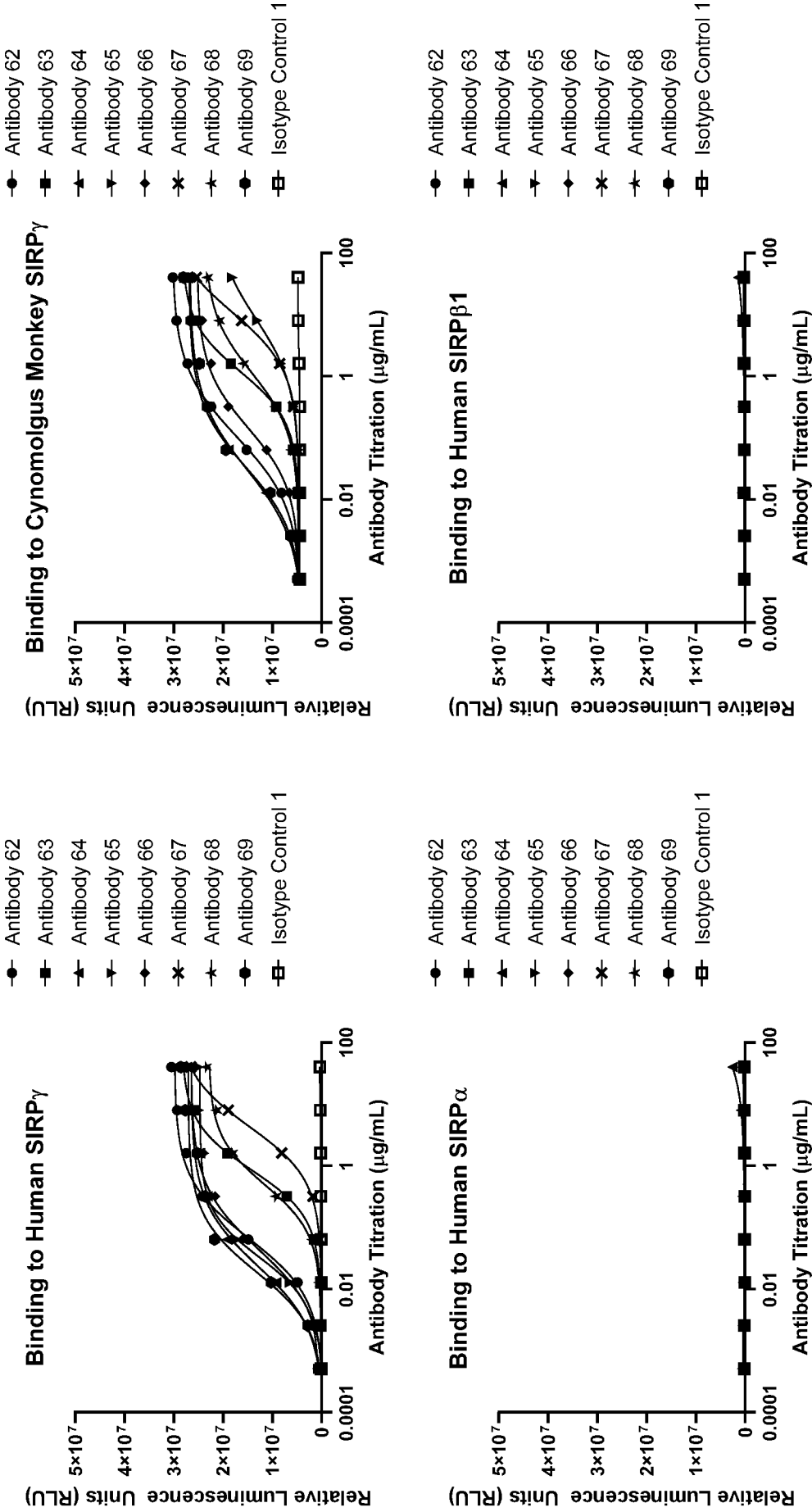


FIG. 2E

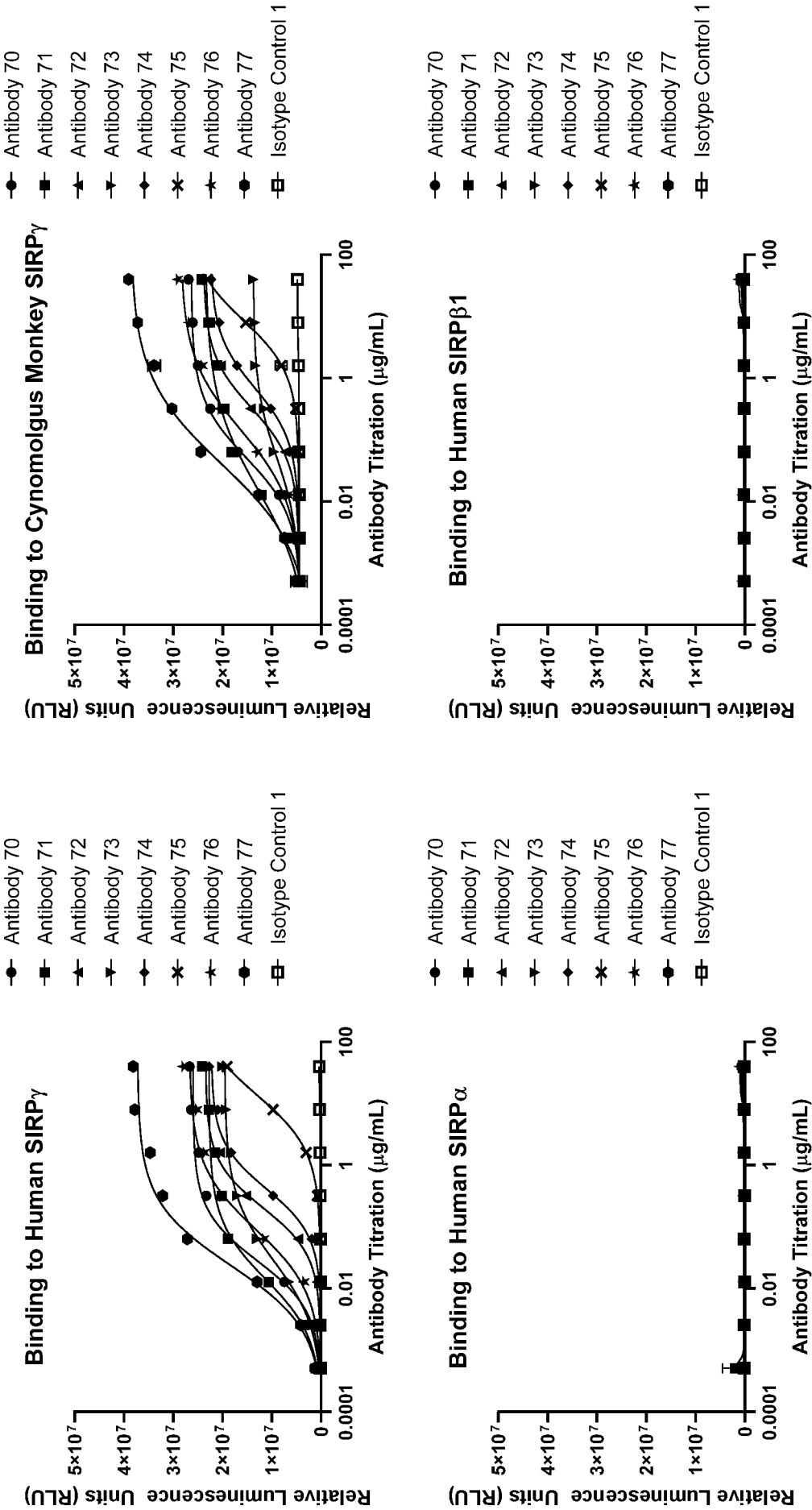


FIG. 2F

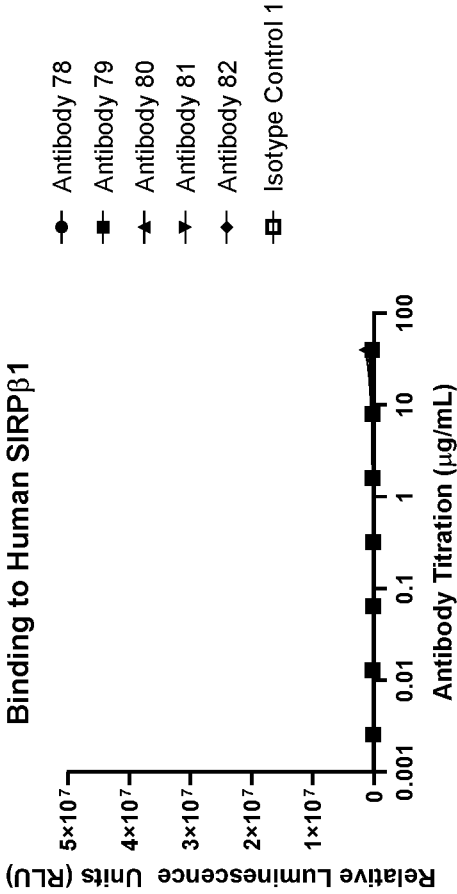
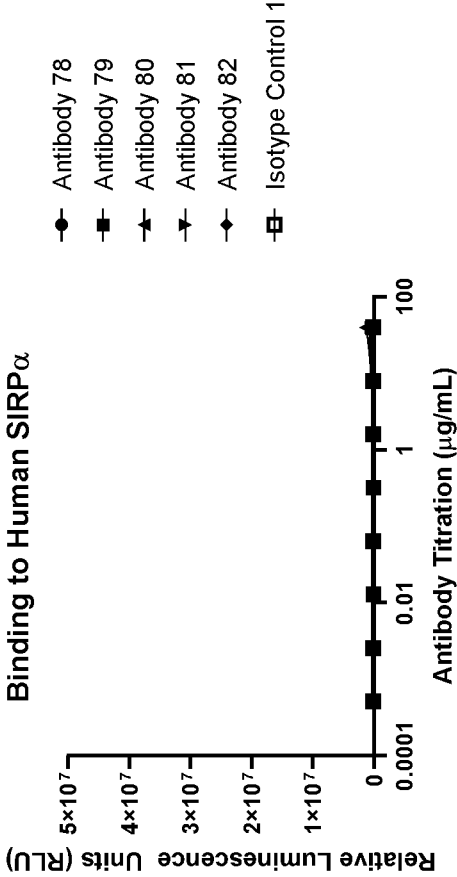
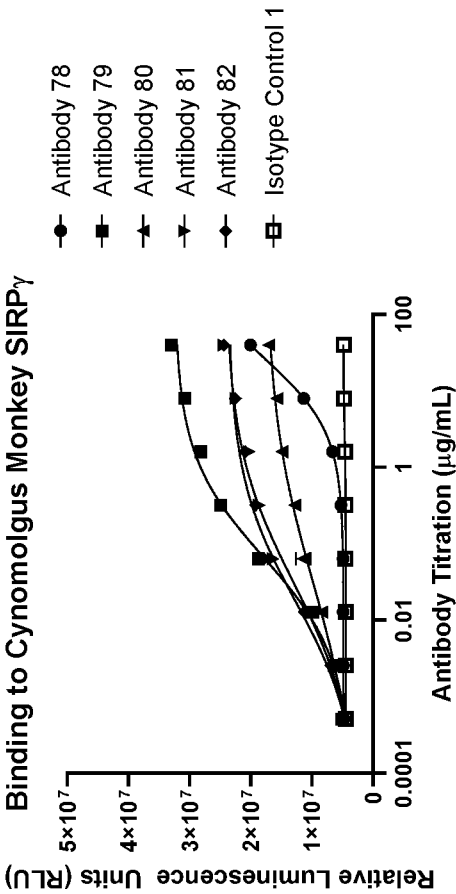
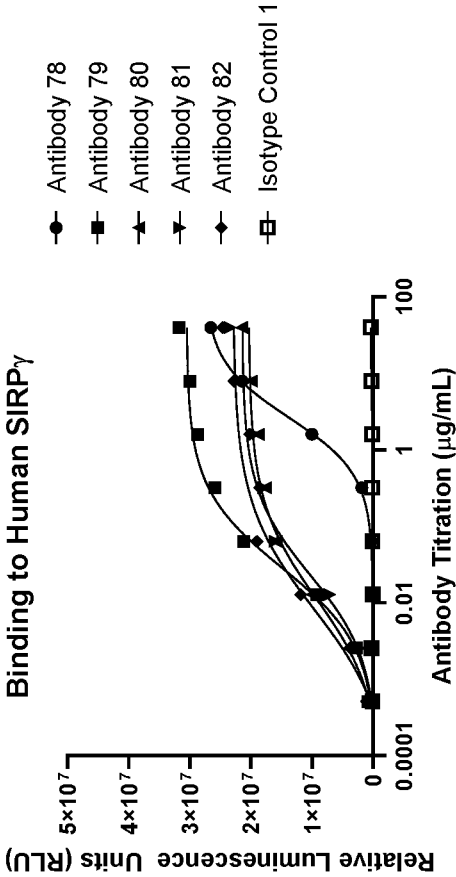


FIG. 2G

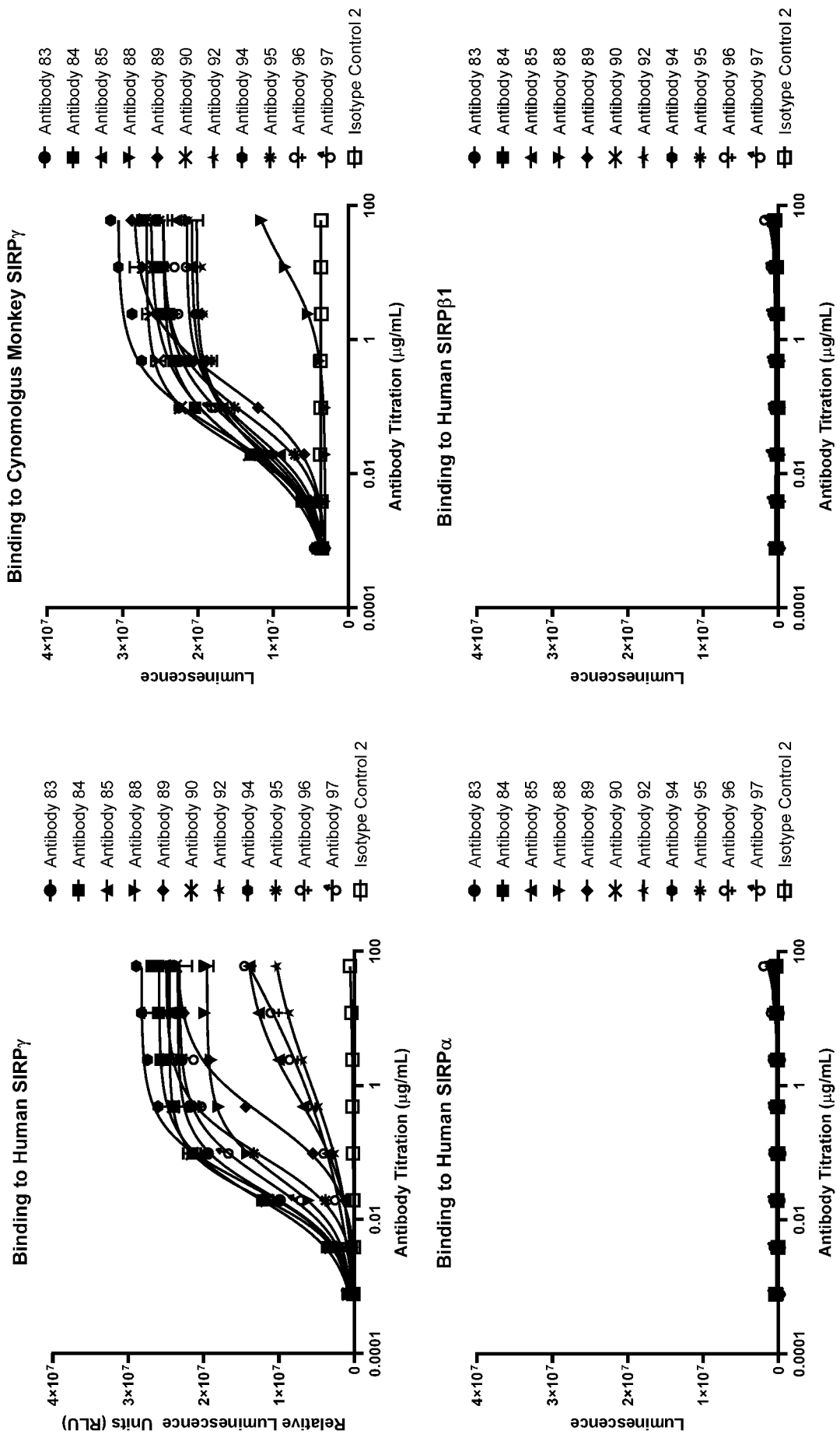


FIG. 3A

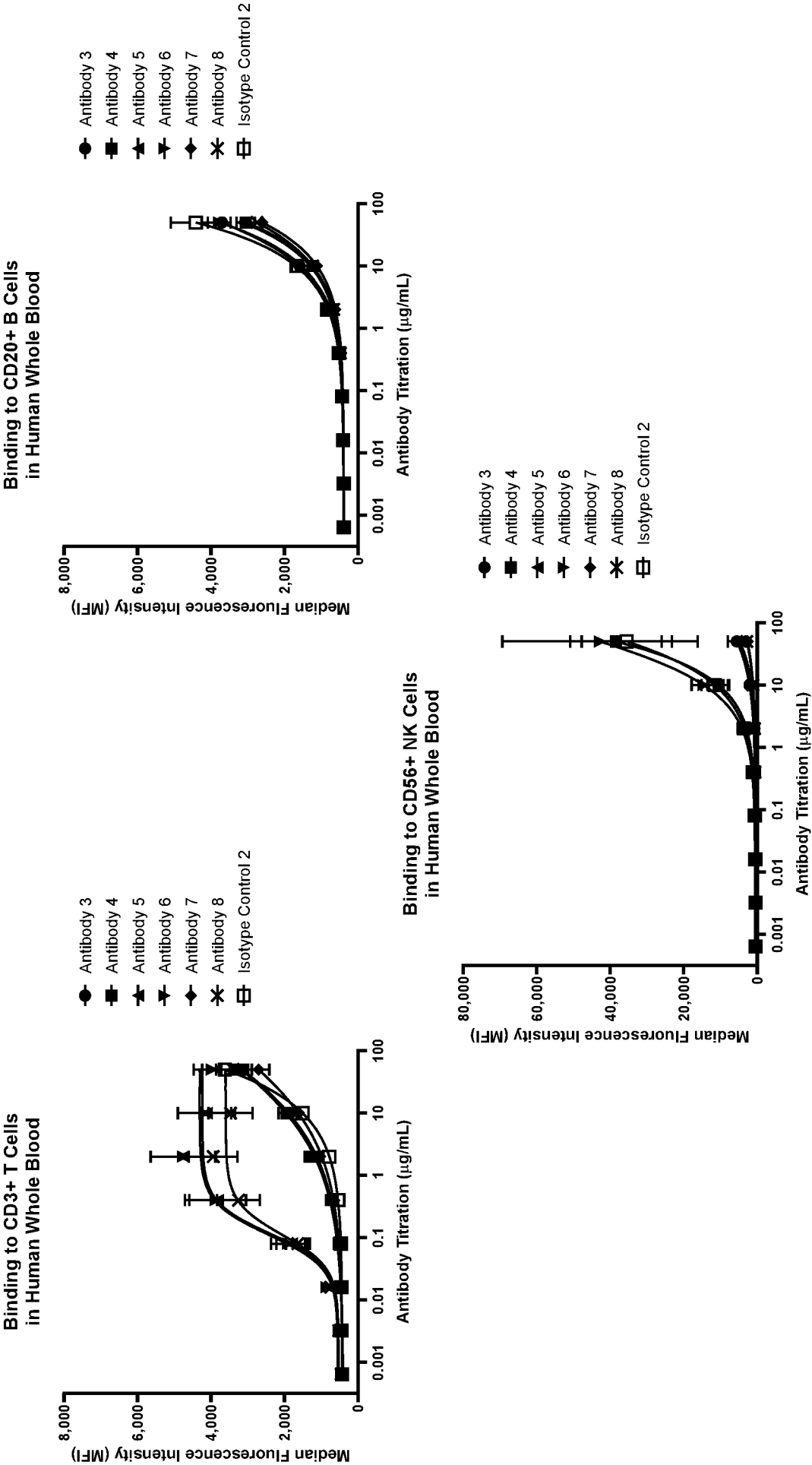


FIG. 3B

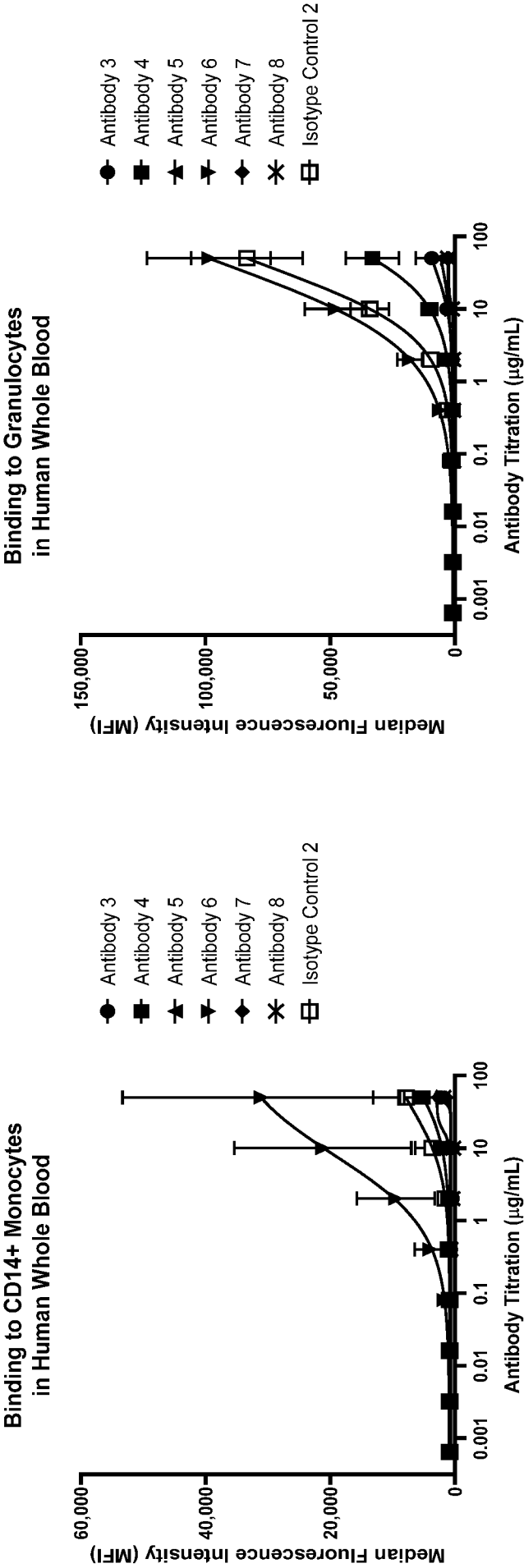


FIG. 3C

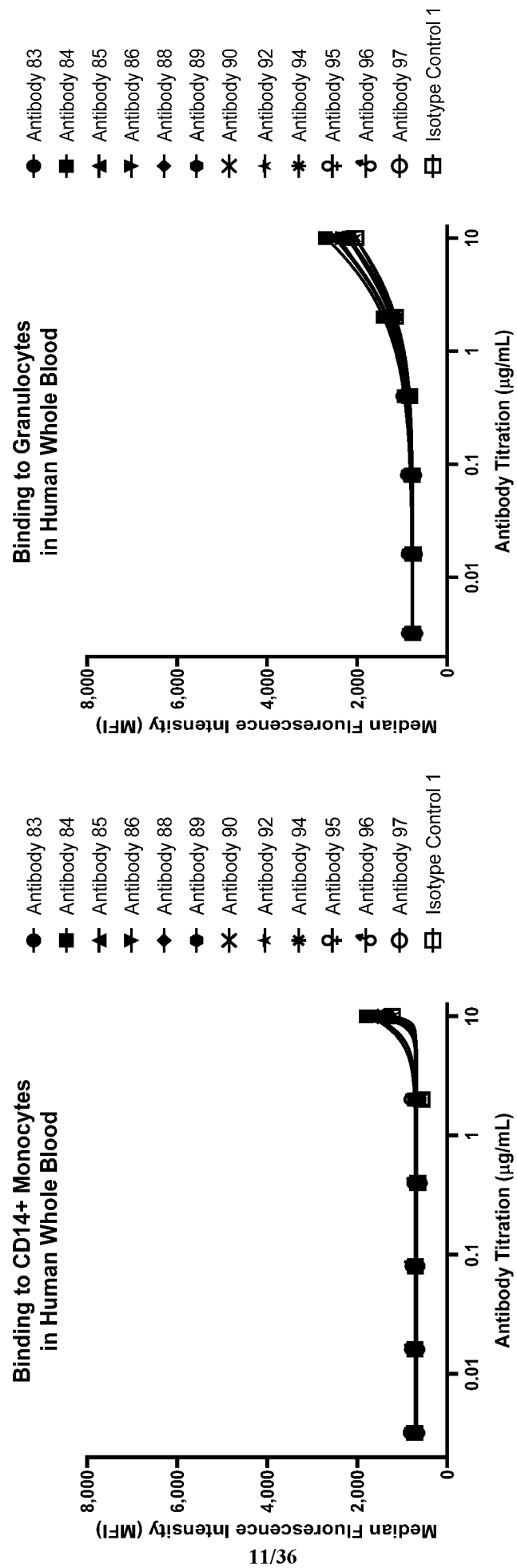


FIG. 3D

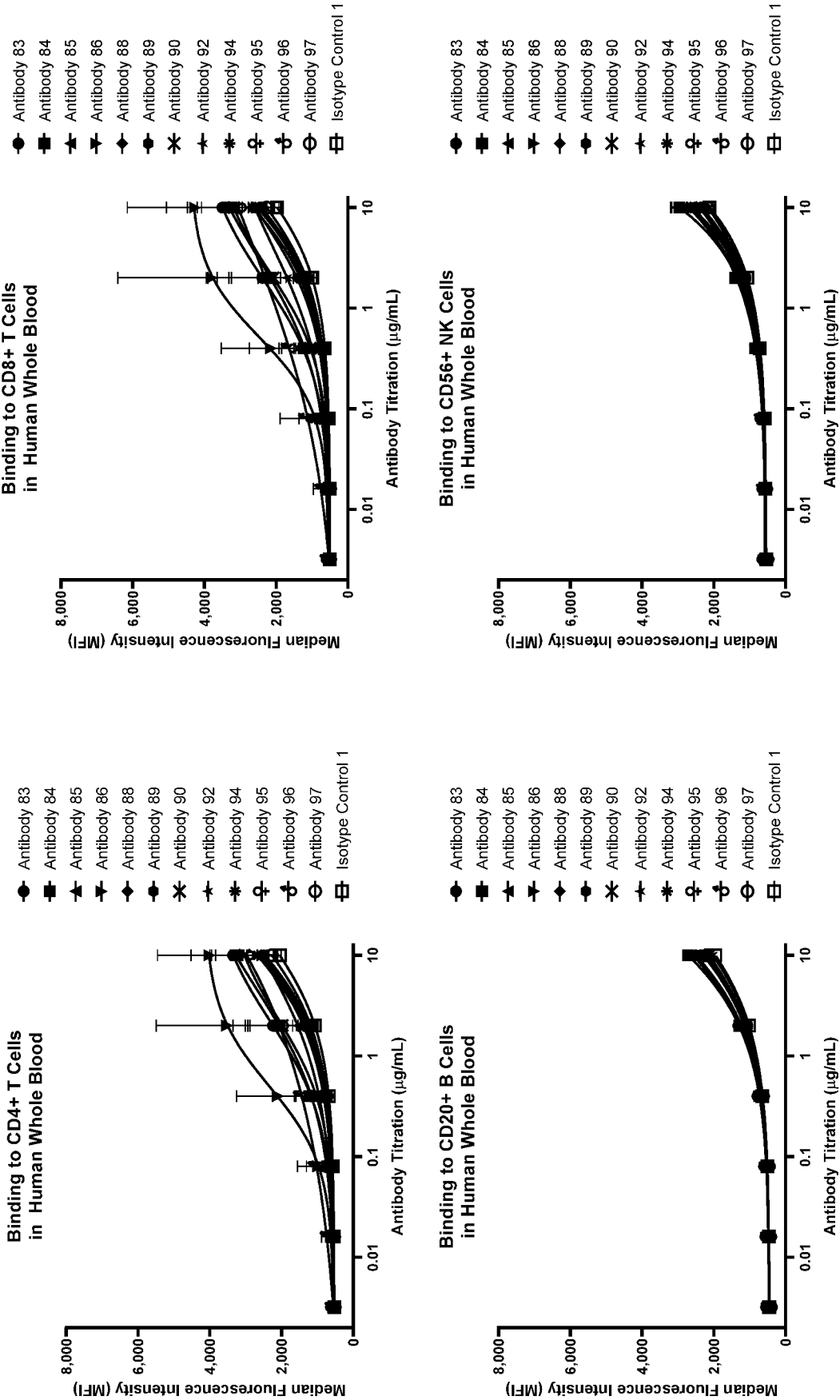


FIG. 4A

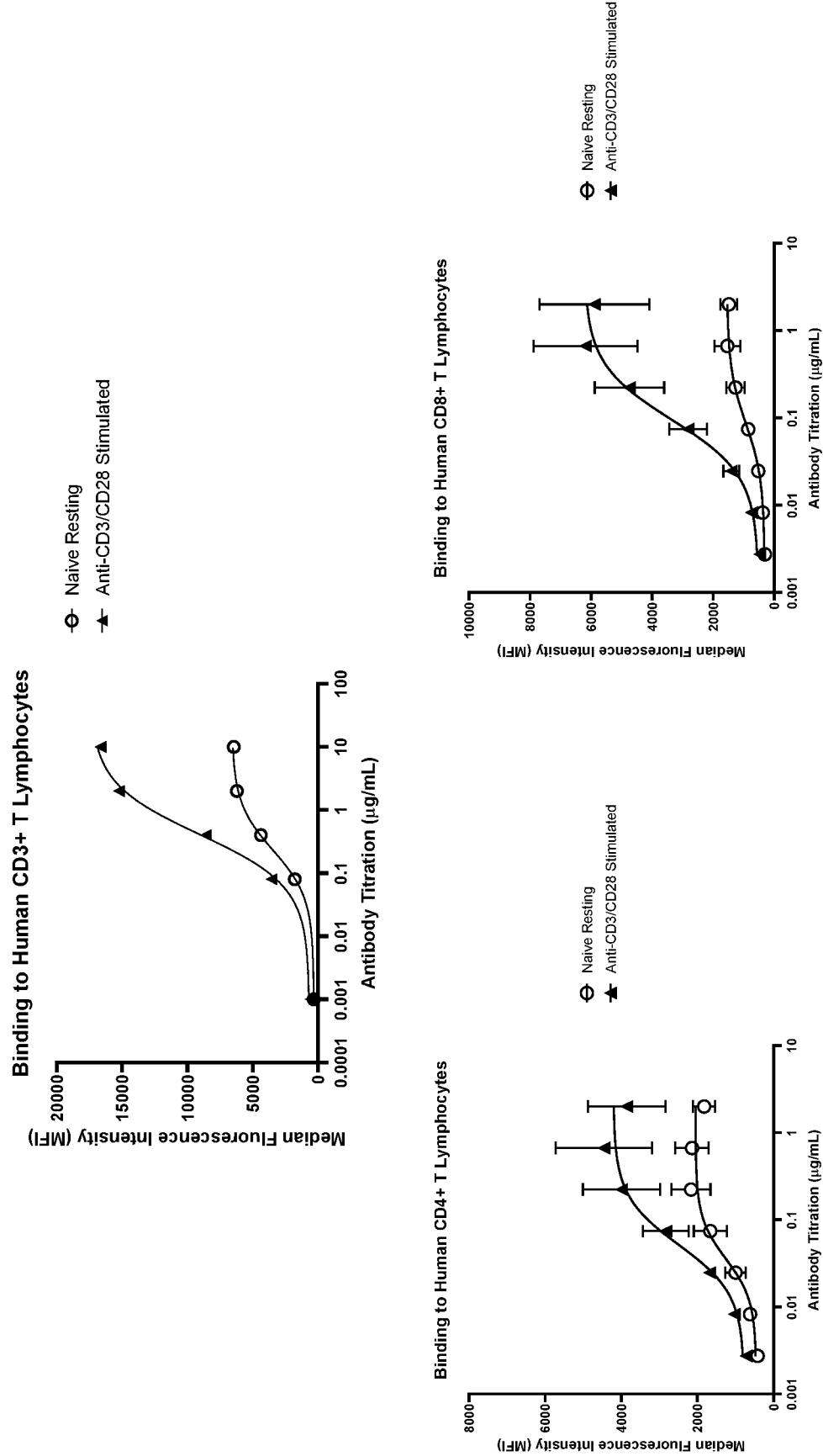


FIG. 4B

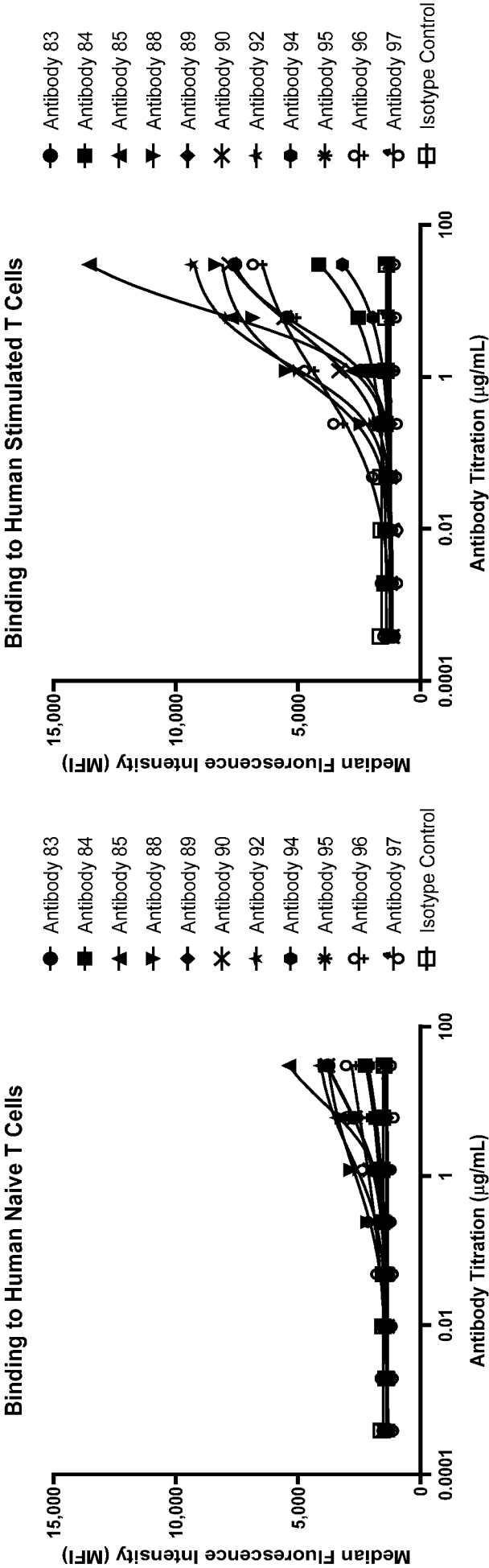


FIG. 4C

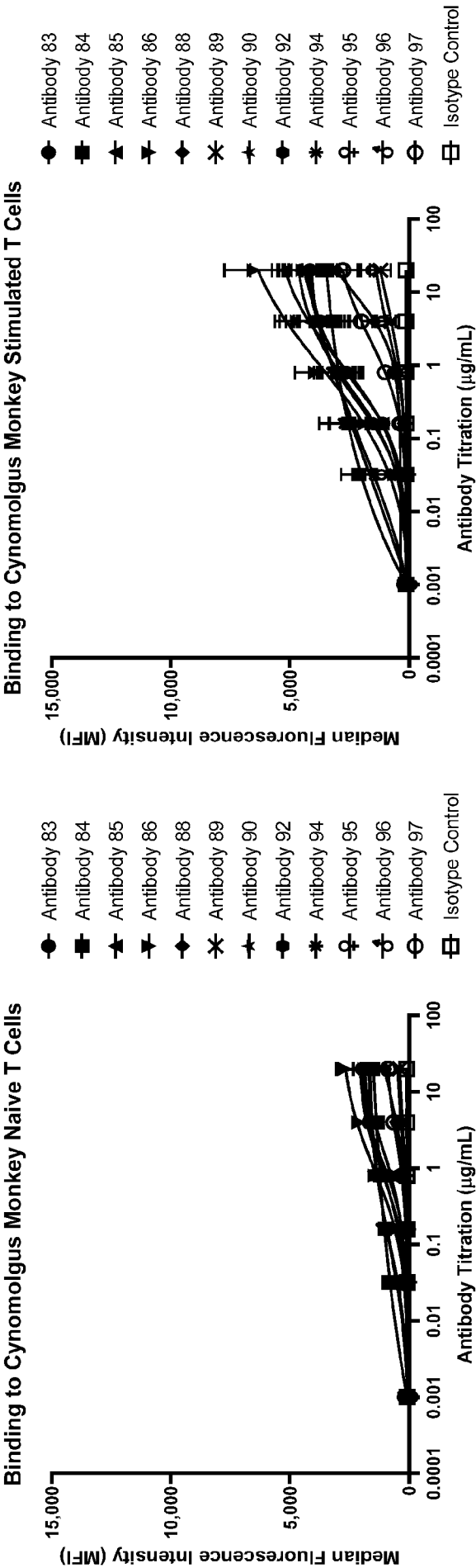


FIG. 4D

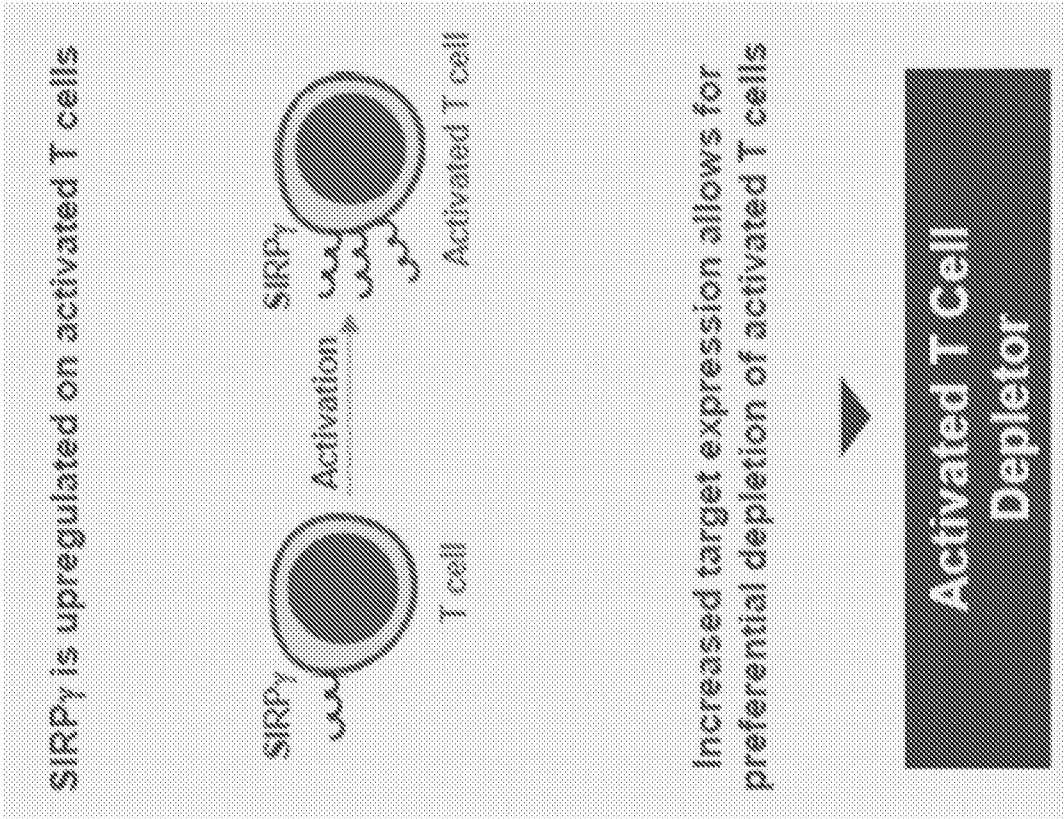


FIG. 5A

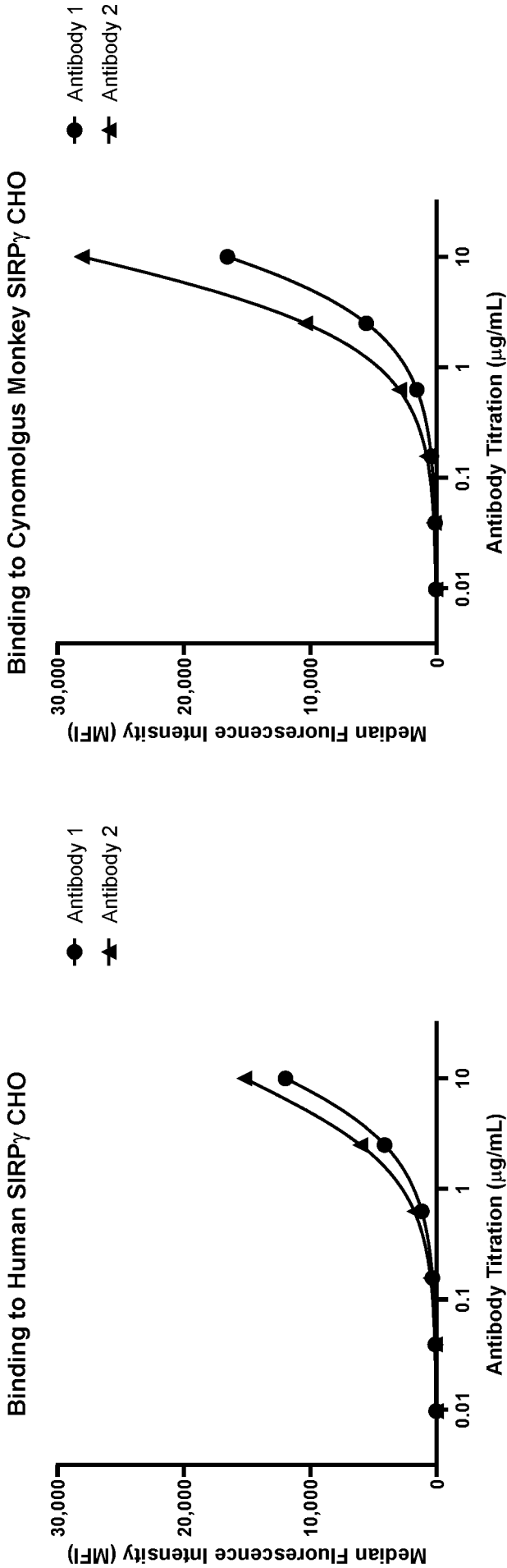


FIG. 5B

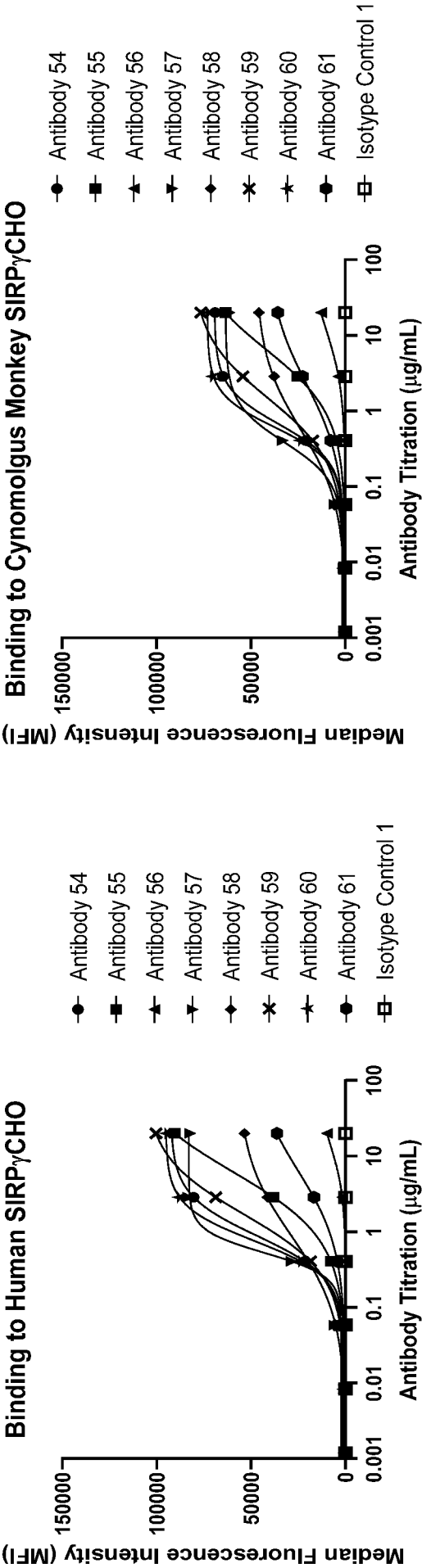


FIG. 5C

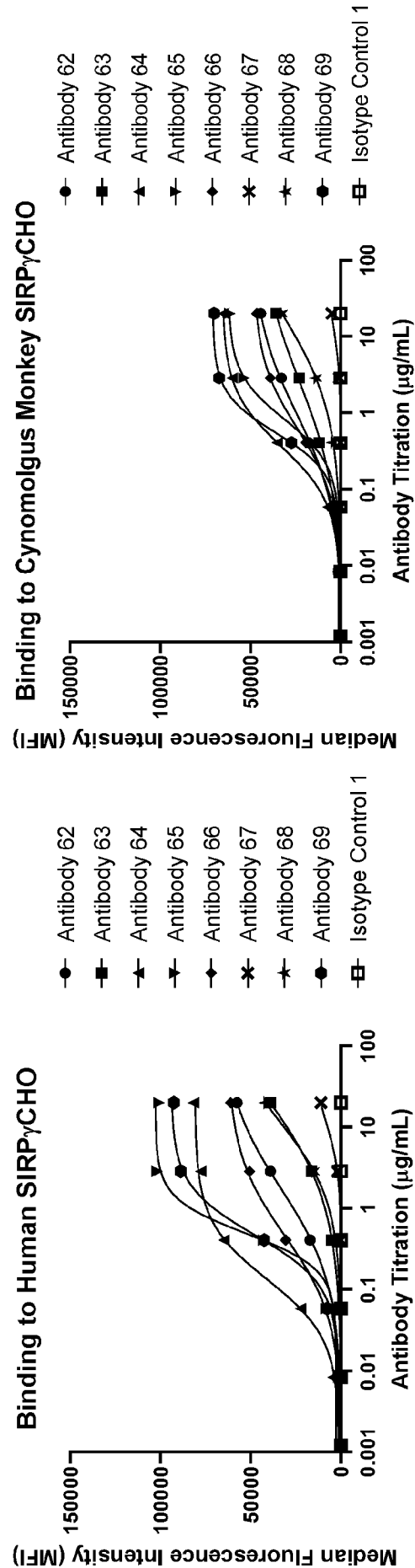


FIG. 5D

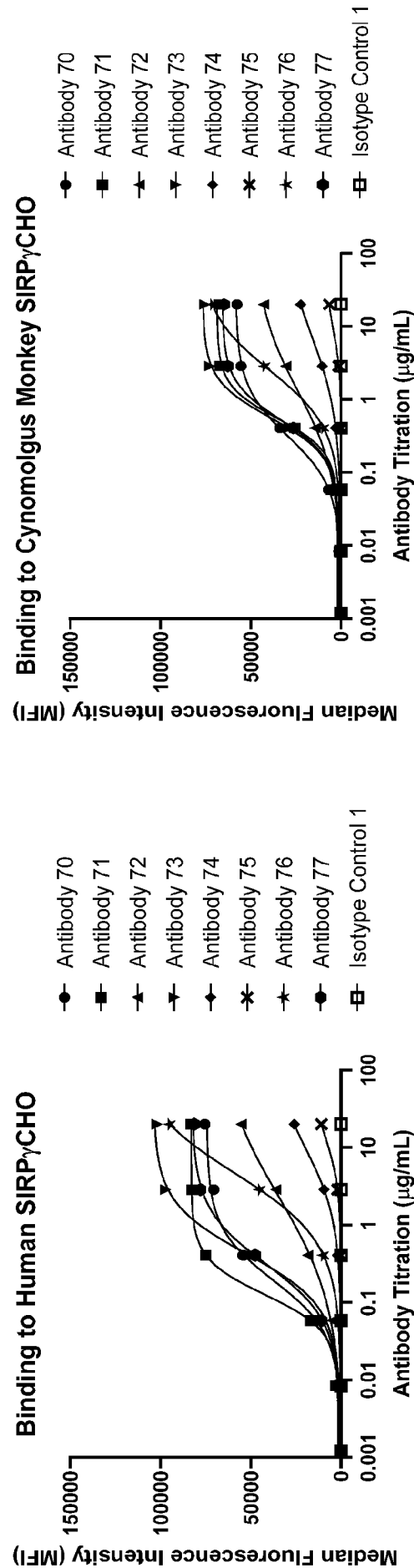


FIG. 5E

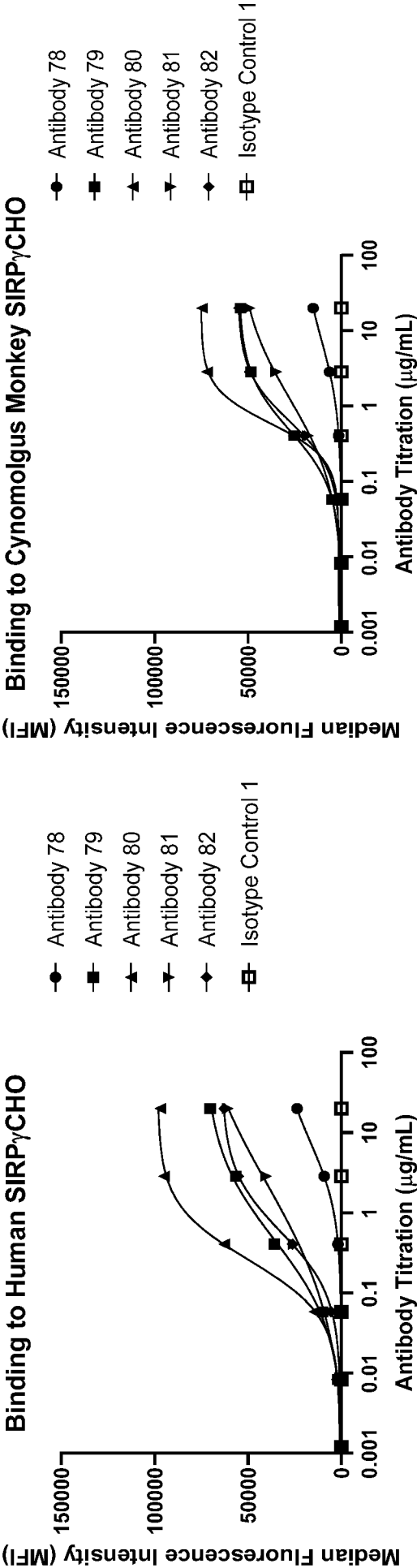


FIG. 5F

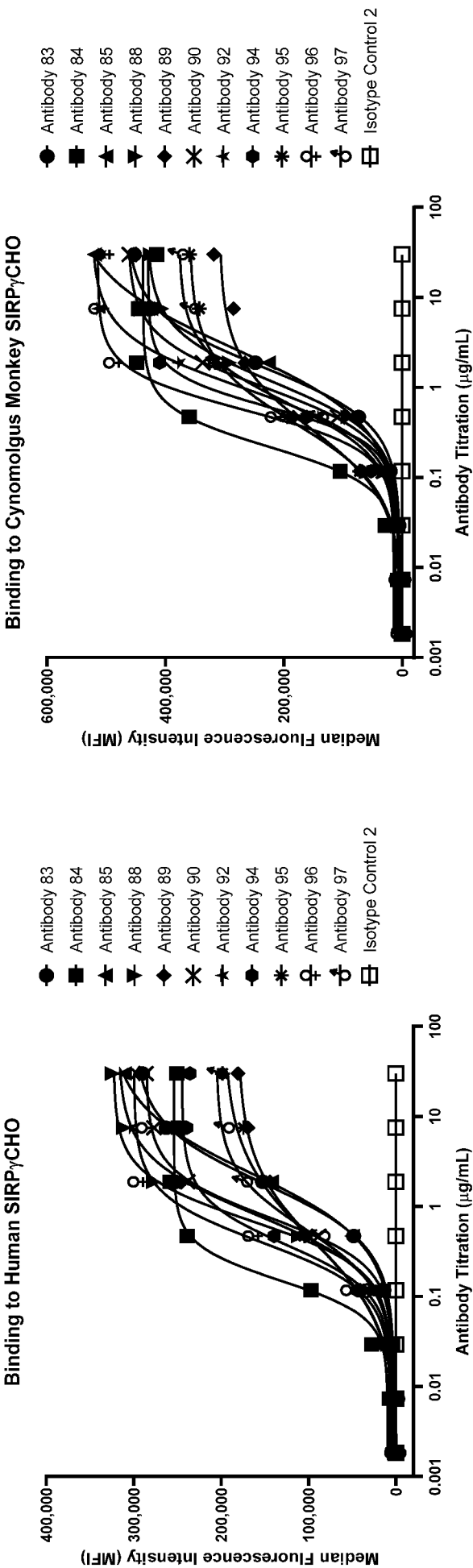


FIG. 5G

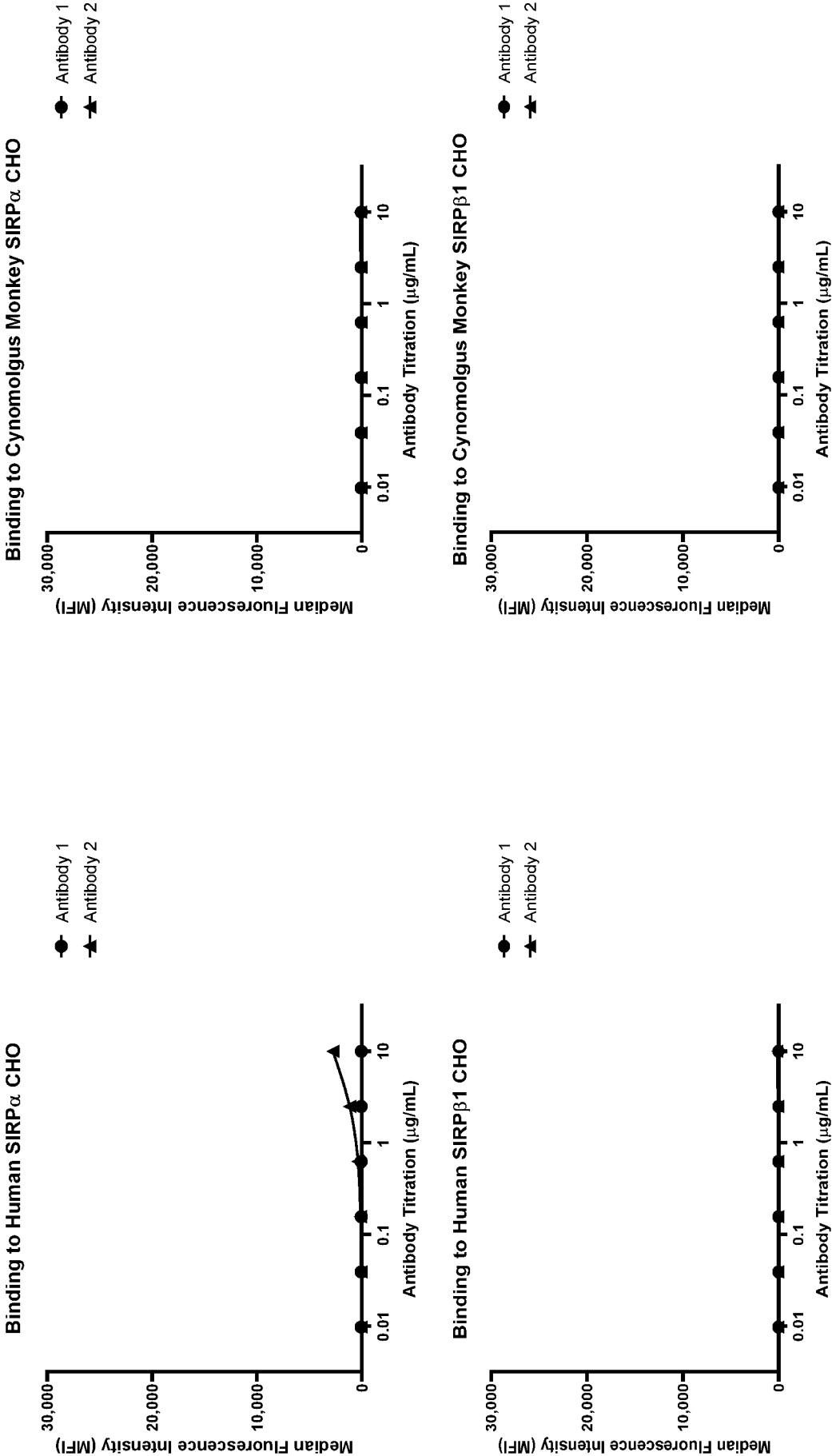


FIG. 5H

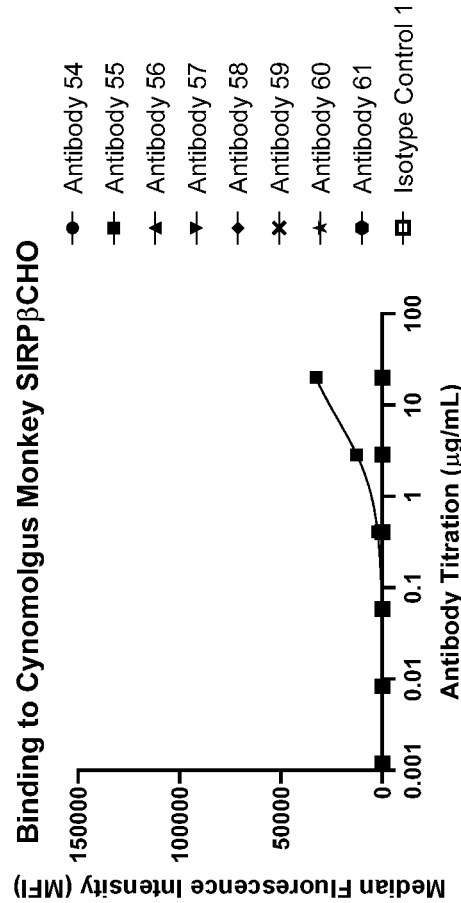
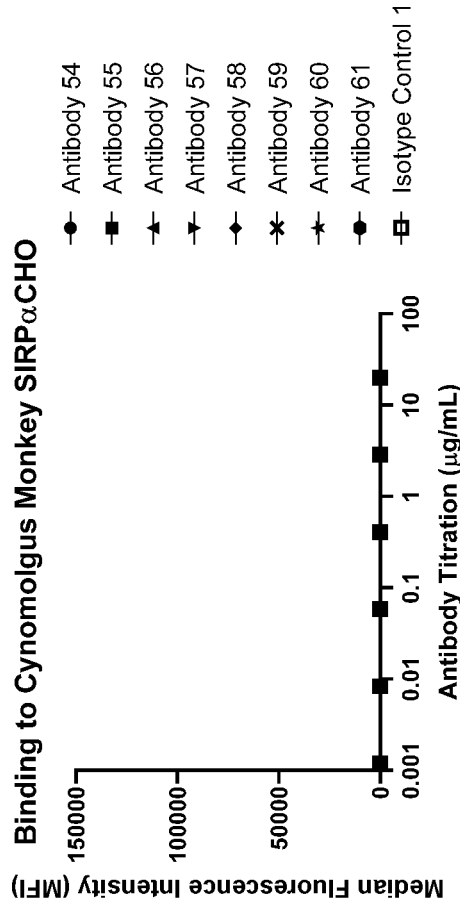
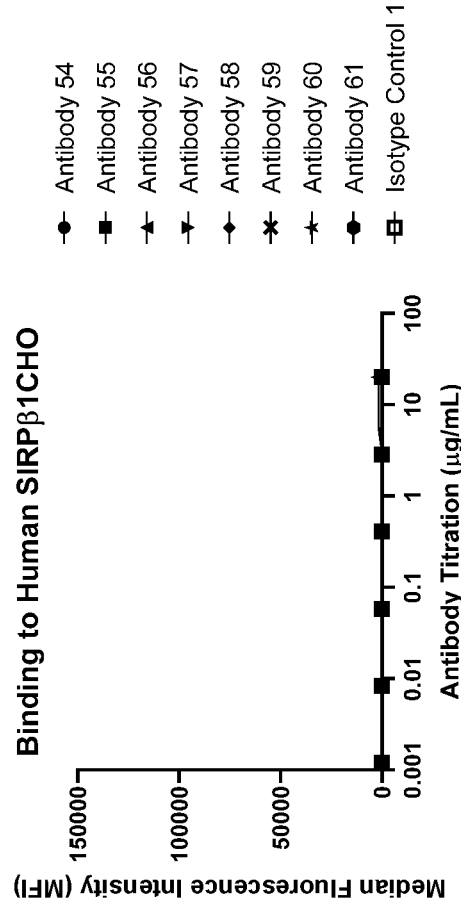
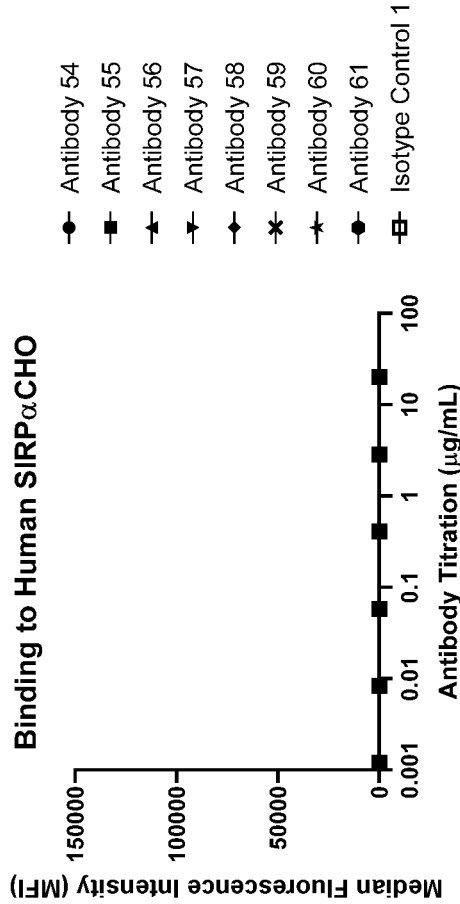


FIG. 5I

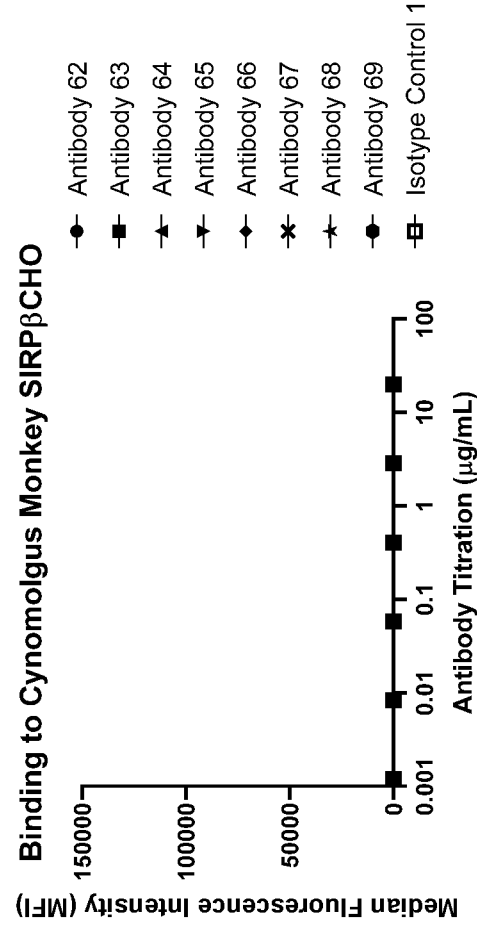
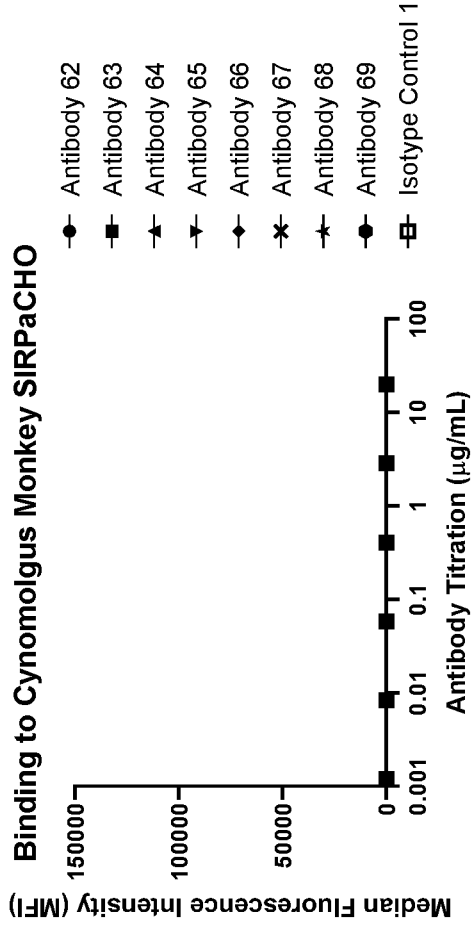
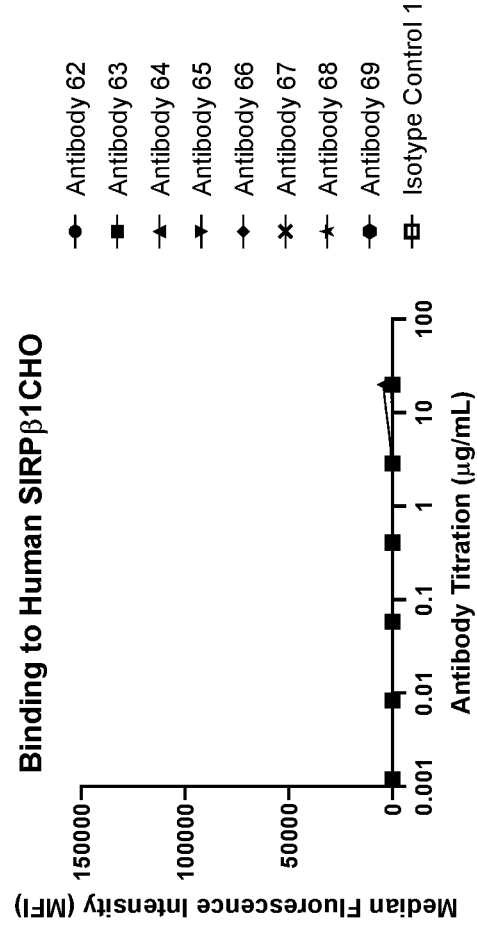
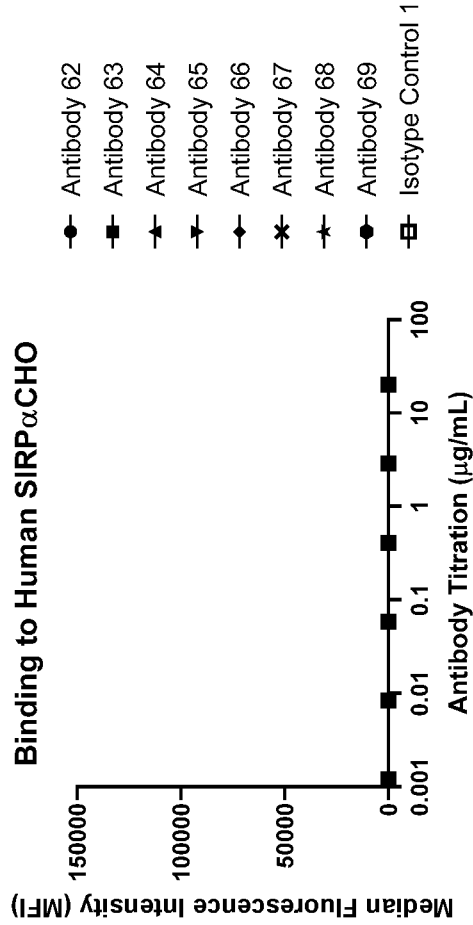


FIG. 5J

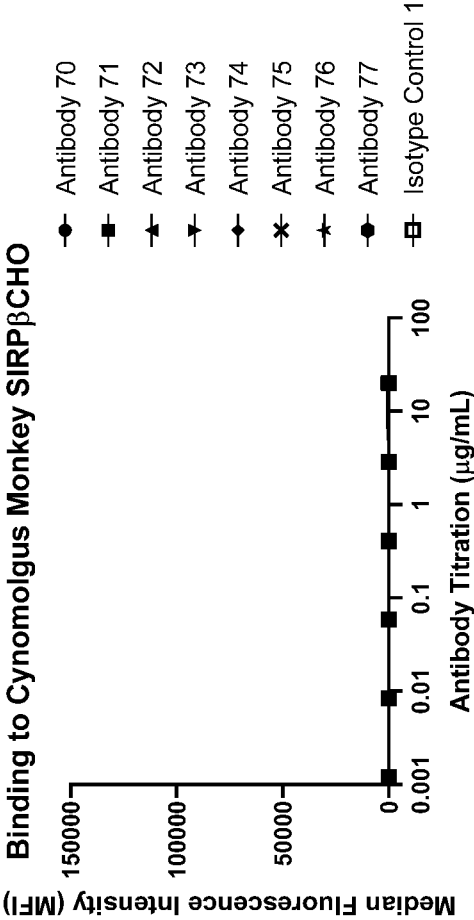
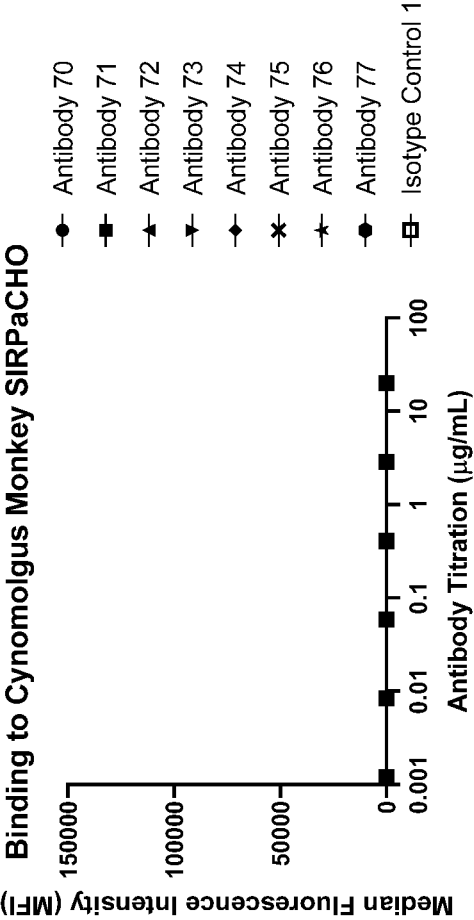
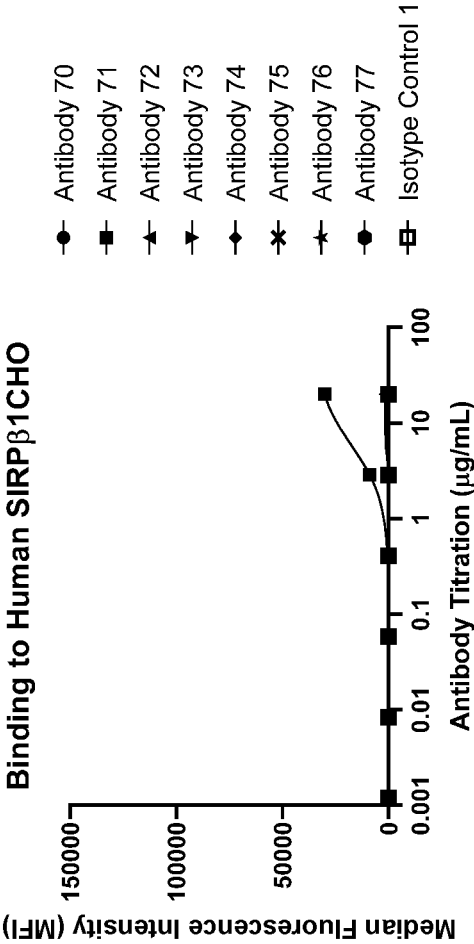
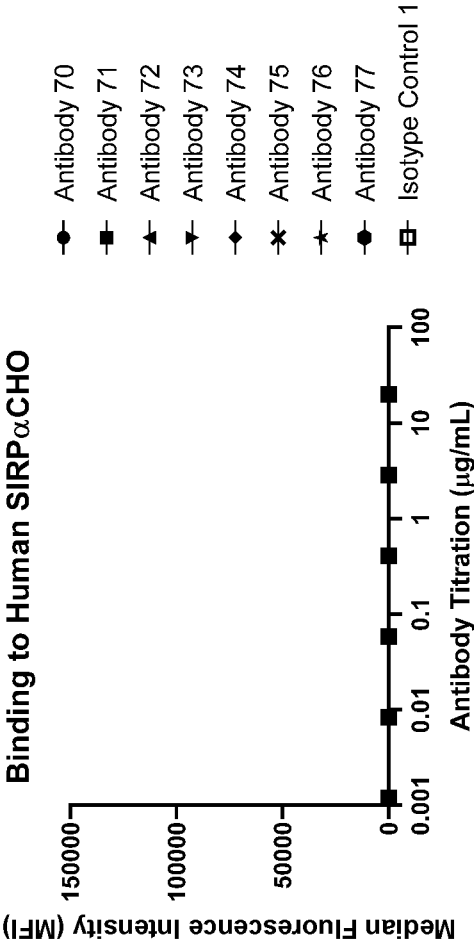


FIG. 5K

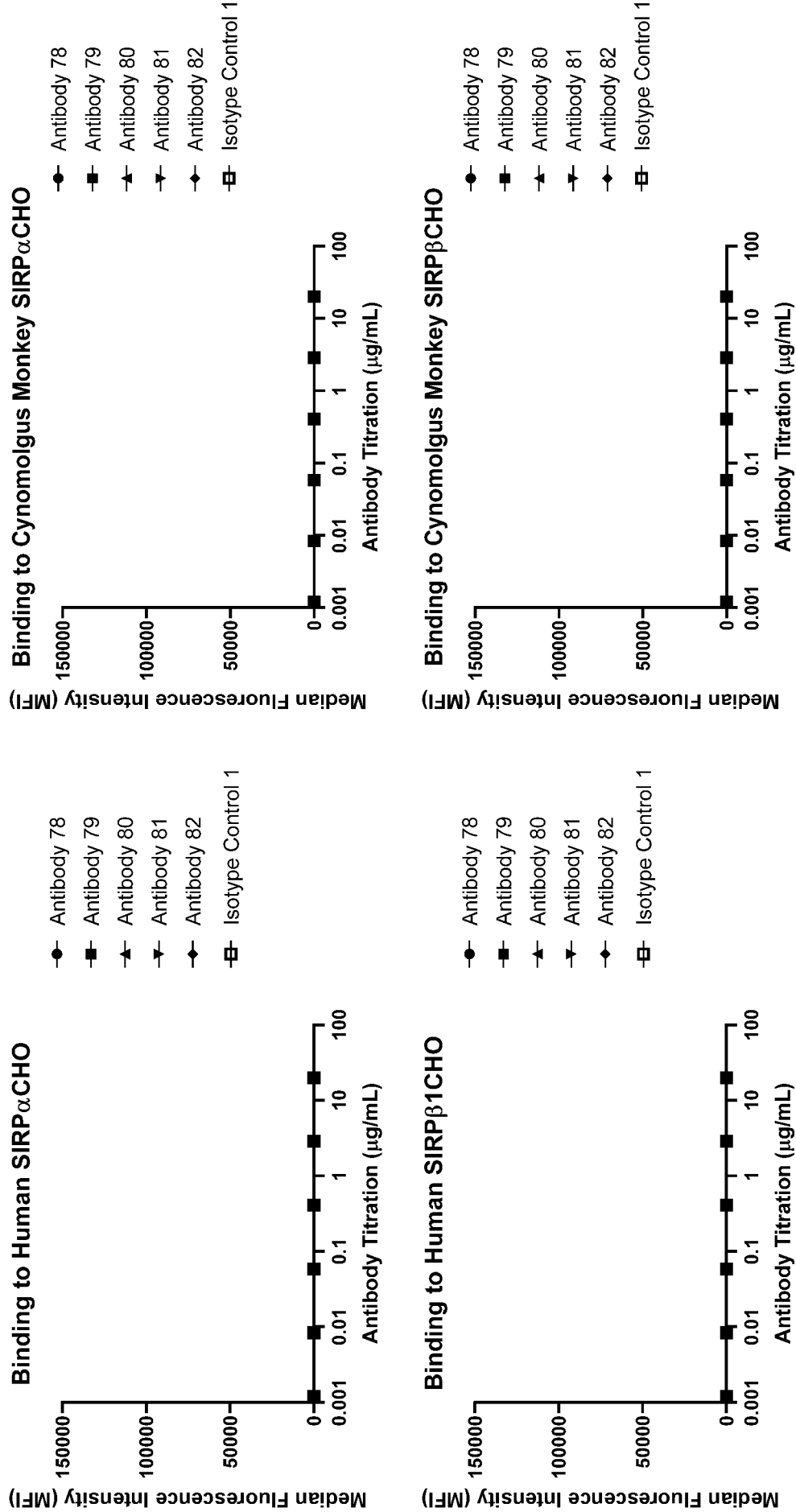


FIG. 5L

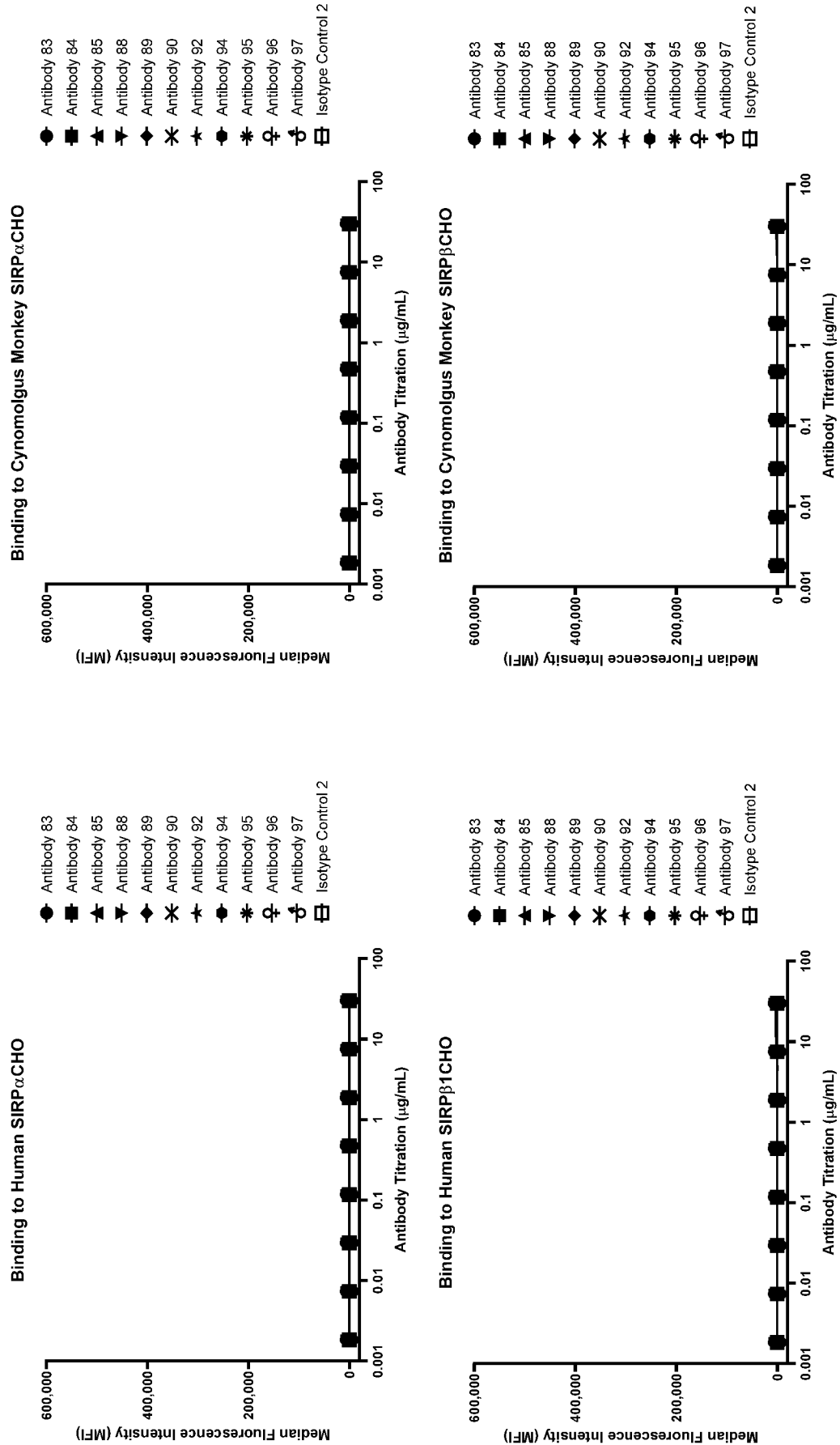


FIG. 6A

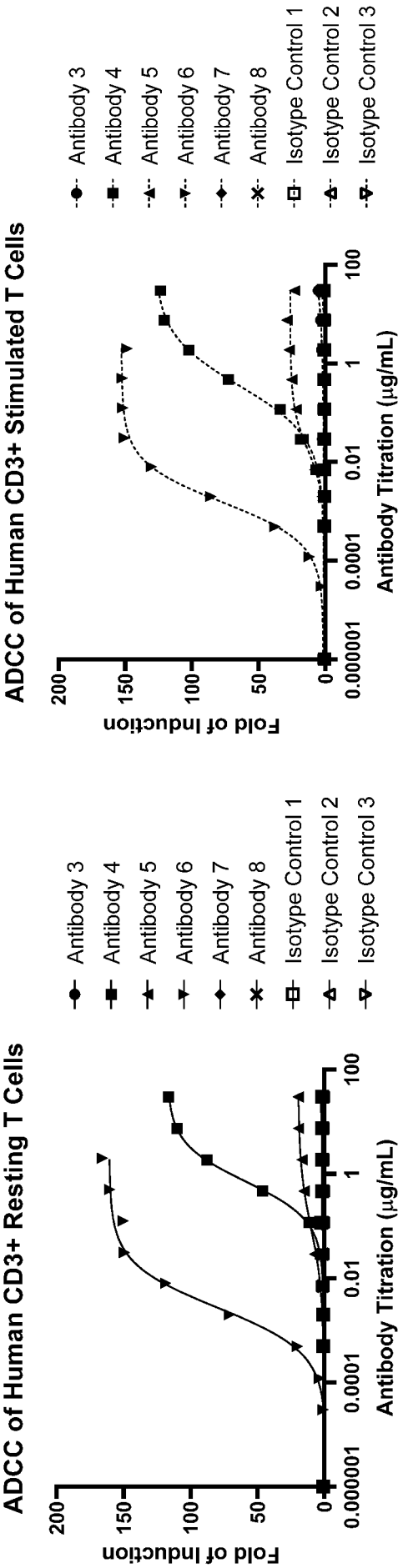


FIG. 6B

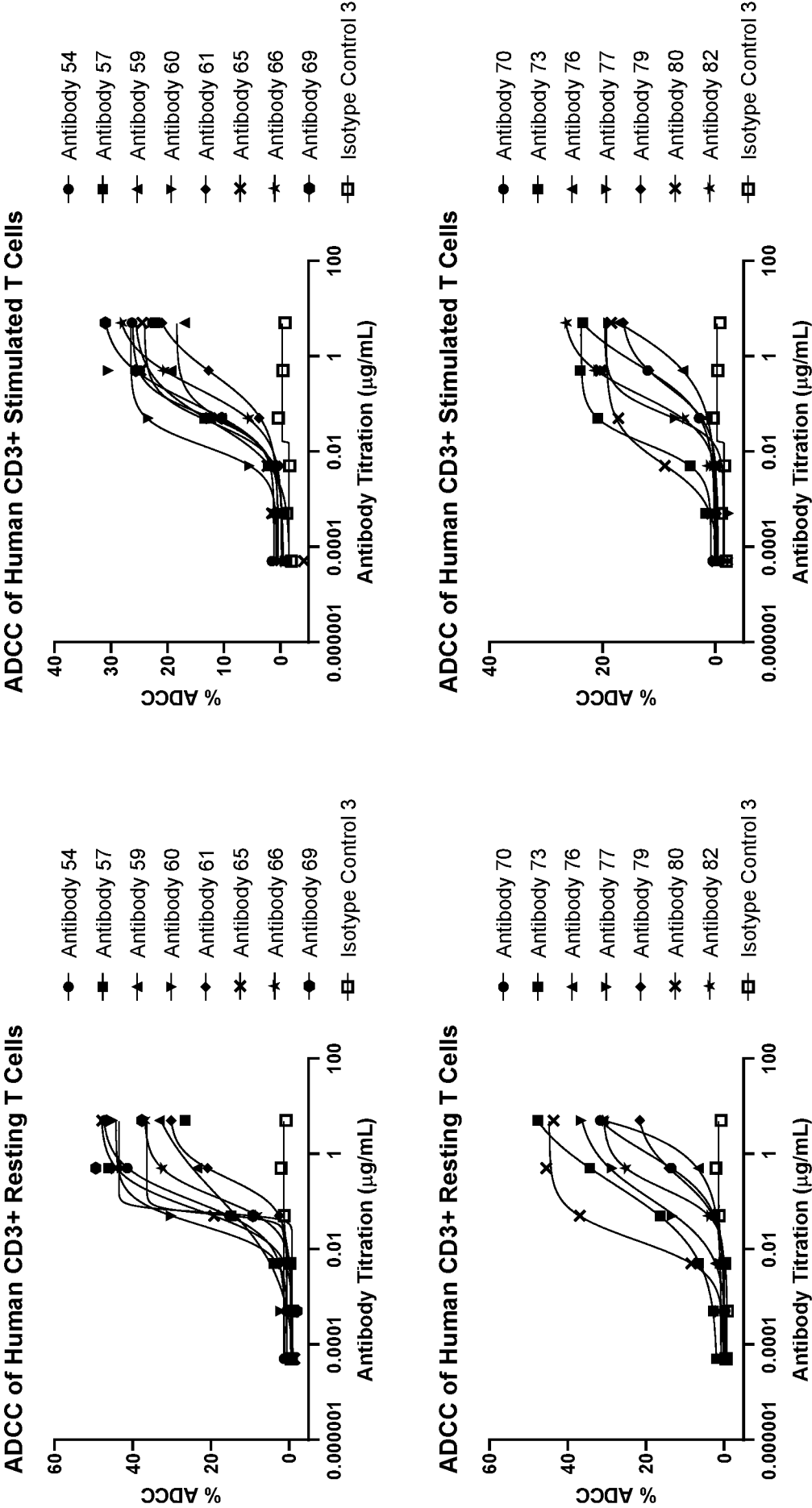


FIG. 6C

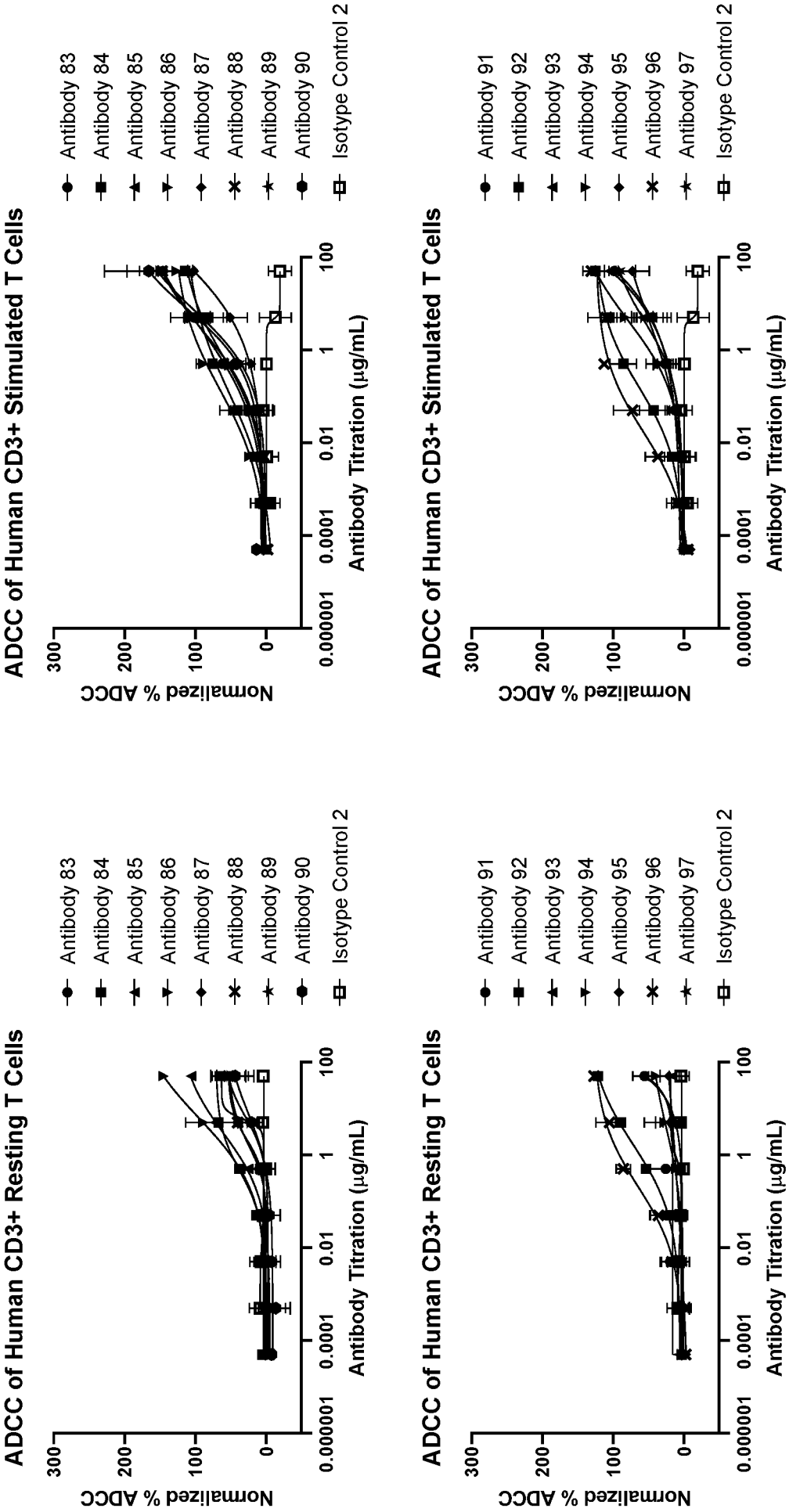


FIG. 7

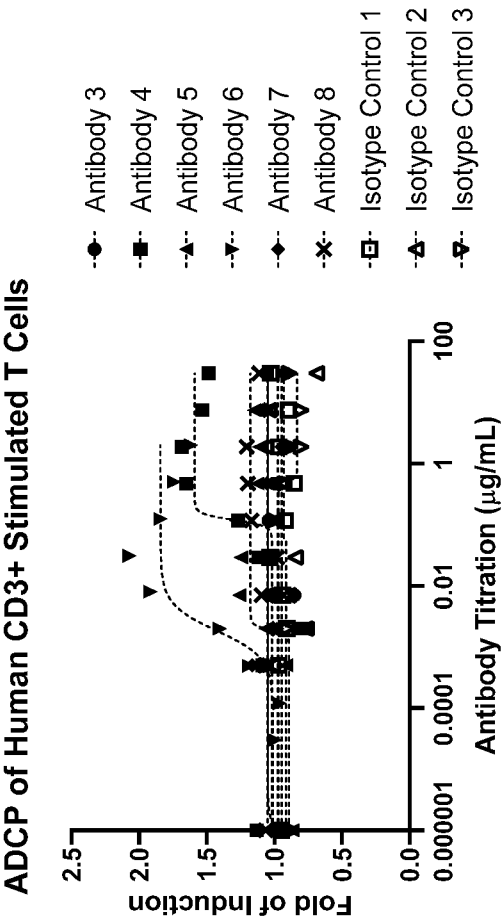
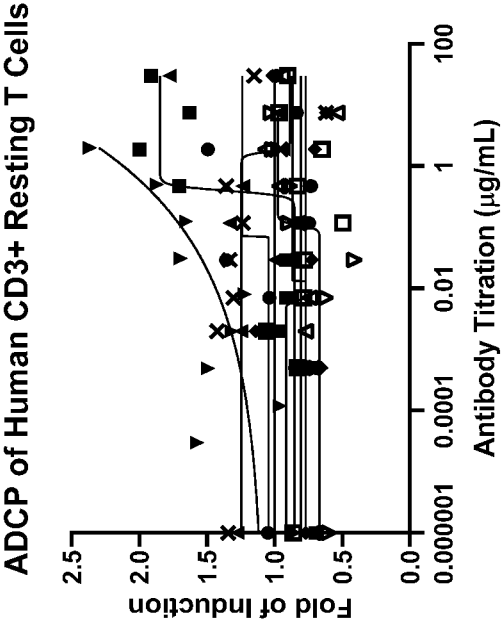


FIG. 8A

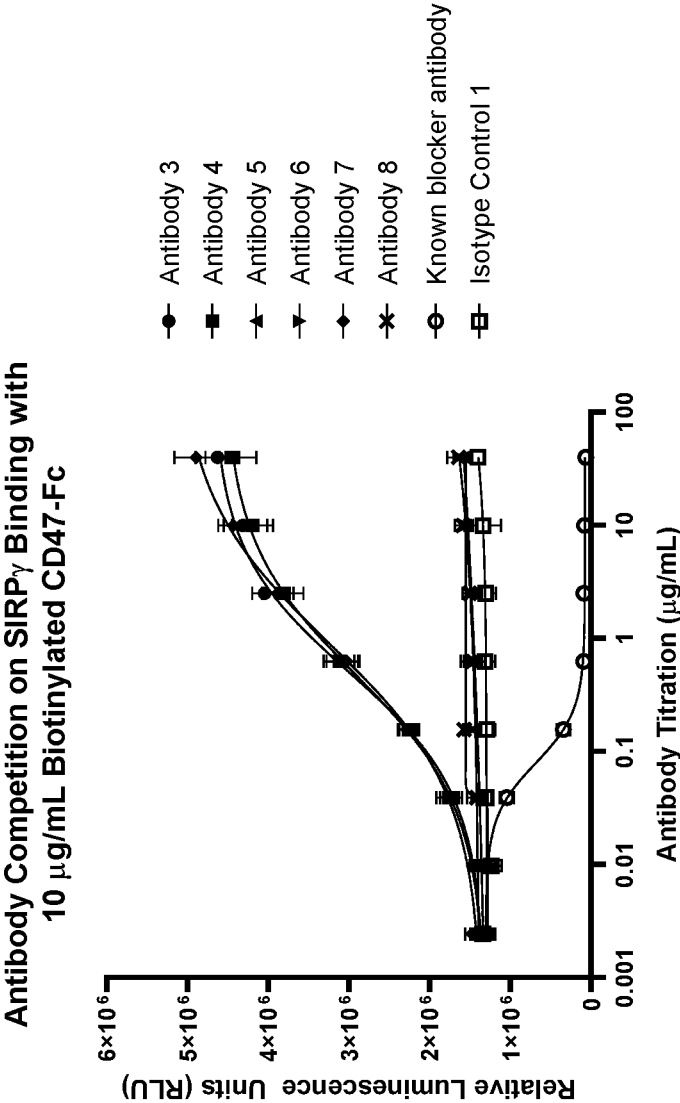


FIG. 8B

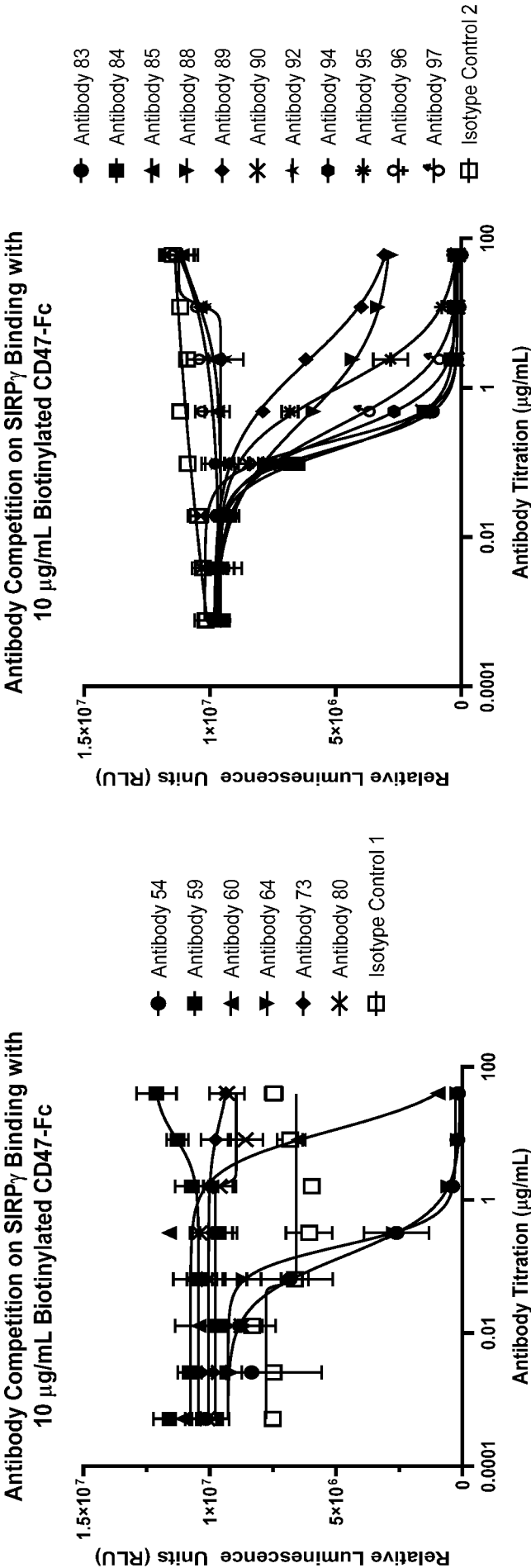


FIG. 9

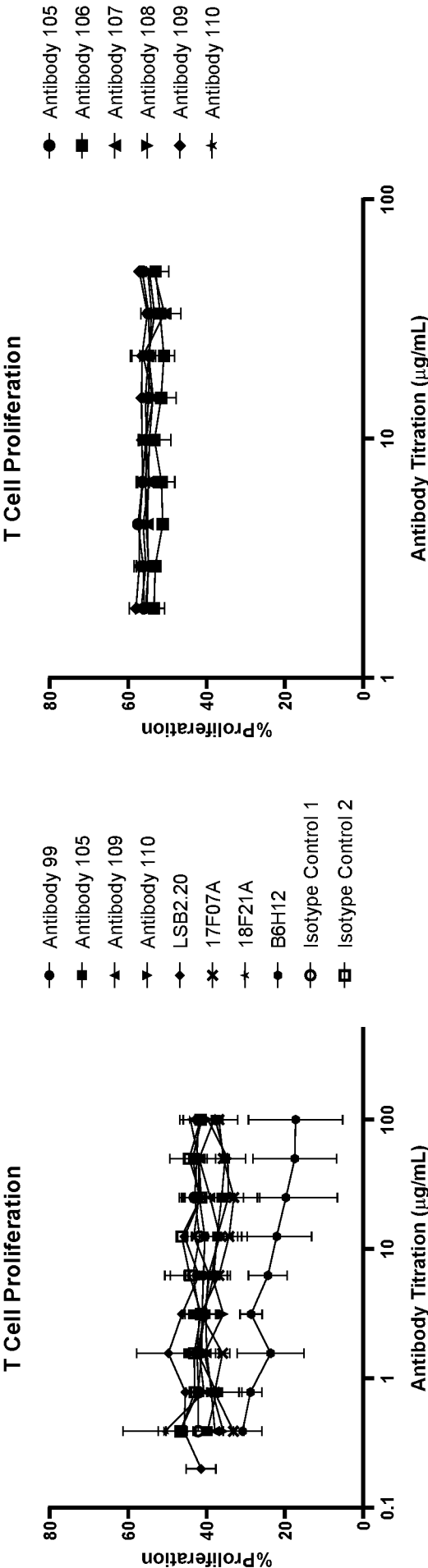


FIG. 10

