

embodiments, the SIRP antibodies also bind to one or more variants or isoforms of a non-human primate SIRP α , e.g. a cynomolgus monkey SIRP α .

[0087] In some embodiments, the SIRP antibodies also bind to a plurality of SIRP α variants found in a particular species, e.g. the SIRP antibodies bind to more than one of SIRP α human variants 1-13. In some embodiments the SIRP antibodies also bind to hSIRP α V1. In some embodiments, the SIRP antibodies also bind to hSIRP α V2. In some embodiments, the SIRP antibodies also bind to hSIRP α V1 and V2. In some embodiments, the SIRP antibodies also bind the extracellular domain of SIRP α , e.g. hSIRP α V1 (e.g. Met1-Arg370 of V1, Gly27-Arg370 of V1, or Glu31-Arg370 of V1), or e.g. hSIRP α V2 (Met1-Arg369).

[0088] In some embodiments, the SIRP antibodies of the disclosure bind a plurality of SIRP α isoforms. For example, the SIRP antibodies of the disclosure may bind to two or more SIRP α isoforms, or all SIRP α isoforms. In some embodiments, the SIRP antibodies bind to isoform 1, 2 and 4 of SIRP α .

[0089] In some embodiments, the SIRP antibodies also bind specifically to hSIRP α V1. In some embodiments, the SIRP antibodies also bind specifically to hSIRP α V2. In some embodiments, the SIRP antibodies also bind specifically to hSIRP α V1 and hSIRP α V2. In some embodiments, the SIRP antibodies also bind specifically to one or more variants of SIRP α , but show little or no binding to SIRP β 1.

[0090] Human SIRP β 1 (hSIRP β 1) has at least 3 isoforms. The amino acid sequence of hSIRP β 1 isoform 1 is provided in SEQ ID NO: 98.

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1  MPVPASWPHL  PSPFLMLTLL  LGRLTGVAGE  DELQVIQPEK  SVSVAAGESA  TLRCAMTSLI
61  PVGPIMWFRG  AGAGRELIYN  QKEGHFPRVT  TVSELTKRNN  LDFSISISNI  TPADAGTYYC
121 VKFRKGSPDD  VEFKSGAGTE  LSVRAKPSAP  VVSGPAVRAT  PEHTVSFTCE  SHGFSPRDIT
181 LKWFKNNGNEL  SDFQTNVDPA  GDSVSYSIHS  TARVVLTRGD  VHSQVICEIA  HITLQGDPLR
241 GTANLSEAIR  VPPTLEVTTQ  PMRAENQANV  TCQVSNFYPR  GLQLTWLENG  NVSRTEAST
301 LIENKDGTYN  WMSWLLVNTC  AHRDDVVLTC  QVEHDGQQAV  SKSYALEISA  HQKEHGSDIT
361 HEAALAPTAP  LLVALLLGPK  LLLVVGVSAT  YICWKQKA  (SEQ ID NO: 98)
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[0091] In some embodiments, the SIRP antibodies also bind to one or more variants or isoforms of a SIRP β 1 of a single species. In some embodiments, the SIRP antibodies also bind to one or more variants or isoforms of a SIRP β 1 of more than one species. In some embodiments, the

SIRP antibodies also bind to one or more variants or isoforms of human SIRP β 1. In some embodiments, the SIRP antibodies also bind to one or more variants or isoforms of a non-human primate SIRP β 1, e.g. a cynomolgus monkey SIRP β .

[0092] In some embodiments, the SIRP antibodies also bind to a plurality of SIRP β 1 variants or isoforms found in a particular species, e.g. the SIRP antibodies bind to more than one of SIRP β 1 human isoforms 1-3. In some embodiments, the SIRP antibodies also bind the extracellular domain of SIRP β 1 (e.g. amino acids 1-371 of SEQ ID NO: [98](#)). In some embodiments, the SIRP antibodies also bind specifically to one or more variants or isoforms of SIRP α , in addition to binding to SIRP γ and SIRP β 1.

[0093] Human SIRP γ has at least 4 isoforms. The amino acid of hSIRP γ isoform 1 is provided as SEQ ID NO: [109](#).

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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  PPTLEVTTQP  MRVGNQVNVN  CQVRKFYPQS  LQLTWSNGN  VCQRETASTL
301 TENKDGTYNW  TSWFLVNISD  QRDDVVLTCQ  VKHDGQLAVS  KRLALEVTVA  QKDQSSDAP
361 GPASSLTALL  LIAVLLGPIY  VPWKQKT (SEQ ID NO: 109)
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[0094] In some embodiments, the SIRP antibodies bind to one or more variants or isoforms of a SIRP γ of a single species. In some embodiments, the SIRP antibodies bind to one or more variants or isoforms of a SIRP γ of more than one species. In some embodiments, the SIRP antibodies bind to one or more variants or isoforms of human SIRP γ . In some embodiments, the SIRP antibodies bind to one or more variants or isoforms of a non-human primate SIRP γ , e.g. a cynomolgus monkey SIRP γ .

[0095] In some embodiments, the SIRP antibodies bind to a plurality of SIRP γ variants or isoforms found in a particular species, e.g. the SIRP antibodies bind to more than one of SIRP γ human isoforms 1-3. In some embodiments, the SIRP antibodies bind the extracellular domain of SIRP γ (e.g. amino acids 1-360 of SEQ ID NO: [109](#)).

[0096] 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