```
SIRPBeta:
Isoform 1  O00241     1  MPVPASWPHLPSPFLLMTLLLGRLTGVAGEDELQVIQPEKSVSVAAGESATLRCAMTSLI   60
Isoform 3  Q5TFQ8     1  MPVPASWPHLPSPFLLMTLLLGRLTGVAGEEELQVIQPDKSISVAAGESATLHCTVTSLI   60
                          ************************.:*******:**:*:**********:*:.:****

Isoform 1  O00241    61  PVGPIMWFRGAGAGRELIYMQKEGHFPRVTTVSELTKRNNLDFSISISNITPADAGTYYC  120
Isoform 3  Q5TFQ8    61  PVGPIQWFRGAGPGRELIYMQKEGHFPRVTTVSDLTKRNNMDFSIRISNITPADAGTYYC  120
                          ***** ****** ********************:******:**** **************

Isoform 1  O00241   121  VKFRKGSPDDVEFKSGAGTELSVRAKPSAPVVSGPAVRATPEHTVSFTCESHGFSPRDIT  180
Isoform 3  Q5TFQ8   121  VKFRKGSPDHVEFKSGAGTELSVRAKPSAPVVSGPAARATPQHTVSFTCESHGFSPRDIT  180
                          **********.**************************.****:*****************

Isoform 1  O00241   181  LKWFKNGNELSDFQTNVDPAGDSVSYSIHSTARVVLTRGDVHSQVICEIAHITLQGDPLR  240
Isoform 3  Q5TFQ8   181  LKWFKNGNELSDFQTNVDPAGDSVSYSIHSTAKVVLTREDVHSQVICEVAHVTLQGDPLR  240
                          ************************************.:******:**.:*********

Isoform 1  O00241   241  GTANLSEAIRVPPTLEVTQQPMRAENQAVTCQVSNFYPRGLQLTWLENGNVSRTETAST  300
Isoform 3  Q5TFQ8   241  GTAMLSETIRVPPTLEVTQQPVRAENQVVNVTCQVRKFYPQRLQLTWLENGNVSRTETAST  300
                          ********:**********:******.******  :***:  ******************

Isoform 1  O00241   301  LIENKDGTYNWMSWLLVNVTCAHRDDVVLTCQVEHDGQQAVSKSYALEISAHQKEHGSDIT  360
Isoform 3  Q5TFQ8   301  LTENKDGTYNWMSWLLVNVSAHRDDVKLTCQVEHDGQPAVSKSHDLKVSAHPKEQGSNTA  360
                          * ********************.*.******* ********** ******; *:.:**** **:**:*. :

Isoform 1  O00241   361  HEAALAPTAPLLVALLLLGPKLLLVVGVSAIYICWKQKA  398
Isoform 3  Q5TFQ8   361  PGPALASAAPLLIAFLLLGPKVLLVVGVSVIYVYWKQKA  398
                             *** .:****.:*.:*****:.******** .**:. ******
```

FIGURE 1A

SIRPBeta:

```
Isoform 1   O00241    1   MPVPASWPHLPSPFL-LMTLLLGRLTGVAGEDELQVIQPEKSVSVAAGESATLRCAMTSL   59
Isoform 3   P78324    1   MEPAGPAPGRLGPLLCLLLAASCAWSGVAGEEELQVIQPDKSVLVAAGETATLRCTATSL   60
                          *   .  *   .*:* *:       :*****:*******:*** *****:*****: ***

Isoform 1   O00241   60   IPVGPIMWFRGAGAGRELIYNQKEGHFPRVTTVSELTKRNNLDFSISISNITPADAGTYY   119
Isoform 3   P78324   61   IPVGPIQWFRGAGPGRELIYNQKEGHFPRVTTVSDLTKRNNMDFSIRIGNITPADAGTYY   120
                          ****** ****** ********************:******:**** *.**********

Isoform 1   O00241  120   CVKFRKGSPDDVEFKSGAGTELSVRAKPSAPVVSGPAVRATPEHTVSFTCESHGFSPRDI   179
Isoform 3   P78324  121   CVKFRKGSPDDVEFKSGAGTELSVRAKPSAPVVSGPAARATPQHTVSFTCESHGFSPRDI   180
                          ************************************.****:******************

Isoform 1   O00241  180   TLKWFKNGNELSDFQTNVDPAGDSVSYSIHSTARVVLTRGDVHSQVICEIAHITLQGDPL   239
Isoform 3   P78324  181   TLKWFKNGNELSDFQTNVDPVGESVSYSIHSTAKVVLTREDVHSQVICEVAHVTLQGDPL   240
                          ********************.*:**********:***** *********:**:*******

Isoform 1   O00241  240   RGTANLSEAIRVPPTLEVTQQPMRAENQANVTCQVSNFYPRGLQLTWLENGNVSRTETAS   299
Isoform 3   P78324  241   RGTANLSETIRVPPTLEVTQQPVRAENQVNVTCQVRKFYPQRLQLTWLENGNVSRTETAS   300
                          ********:**************:*****.****** :***: ******************

Isoform 1   O00241  300   TLIENKDGTYNWMSWLLVNTCAHRDDVVLTCQVEHDGQQAVSKSYALEISAHQKEHGSDI   359
Isoform 3   P78324  301   TVTENKDGTYNWMSWLLVNVSAHRDDVKLTCQVEHDGQPAVSKSHDLKVSAHPKEQGSNT   360
                          *: ****************..****** ********** *****: *:;*** **;**:

Isoform 1   O00241  360   THEAALAPTAPLLVALLLGPKLLLVVGVSAIYICWKQKA----------------------   398
Isoform 3   P78324  361   AAENTGSNERNIYIVVGVVCTLLVALLMAALYLVRIRQKKAQGSTSSTRLHEPEKNAREI   420
                          : * : :    : :.: :  .**:.: ::*:*:   ::

Isoform 1   O00241  399   ------------------------------------------------------------   398
Isoform 3   P78324  421   TQDTNDITYADLNLPKGKKPAPQAAEPNNHTEYASIQTSPQPASEDTLTYADLDMVHLNR   480

Isoform 1   O00241  399   -----------------------   398
Isoform 3   P78324  481   TPKQPAPKPEPSFSEYASVQVPRK   504
```

FIGURE 1B

```
HUMAN  Q00241    1  MPVPASWPHLPSPFLLMTLLLGRLTGVAGEDELQVIQPEKSVSVAAGESATLRCAMTSLI   60
MOUSE  Q08FX8    1  MLLLDAWTHIPHCVLLLILLGLKG--AAVRELKVIQPVKSFFVGAGGSATLMCTVTYLL   58
                    *  :  :.* *:*  .  **: ****      *.  .**:**** **.  *.** ****.*::.* *:

HUMAN  Q00241   61  PVGPIMWFRGAGAGRELIYNQKEGHFPRVTTVSELTKRNNLDFSISISNITPADAGTYYC  120
MOUSE  Q08FX8   59  PVGPIKWYRGVGQSRLLIYPFTGEYFPRITSVSDVKKRSNLDFSIRISNVTPADSGTYYC  118
                    ****** *:**.*  .* *** .  :****:*:**::.:**.****** ***:*****:*****

HUMAN  Q00241  121  VKFRKGSP-DDVEFKSGAGTELSVRAKPSAPVVSGPAVRATPEHTVSFTCESHGFSPRDI  179
MOUSE  Q08FX8  119  VKFQRGSSEPDIEIQSGGGTELSVFAKPSSPWVSGPAARAVPQQTVTFTCRSHGFFPQNL  178
                    ***:*:**   *:**::*.******* ****:*:*****.**.*.::***:*****.**** *::::

HUMAN  Q00241  180  TLKWFKNGNELSDFQTNVDPAGDSVSYSIHSTARVVLTRGDVHSQVICEIAHITLQGDPL  239
MOUSE  Q08FX8  179  TLKWFKNGNEISHLETSVEPEETSVSYRVVSSTVQVVLEPRDVRSQIICEVAHVTLDRAPL  238
                    ********** *.::*.*::*  *:** ****  : **.:*** **:*:***:: *:*:**:  **

HUMAN  Q00241  240  RGTAWLSEAIRVPPTLEVTQQPMRAEMQAWVTCQVSNFYPRGLQLTWLENGNVSRTETAS  299
MOUSE  Q08FX8  239  RGTAHISEITQVPPTLEISQQPTMWMVIMVTCQIQKFYPRRFQVTWLENGNISRREVPF  298
                    ** * *::*** *:*******::***   .  *   ******:*:*:**** :*:*********:** * .

HUMAN  Q00241  300  TLIENKDGTYNWMSWLLVNTCAHRDDVVLTCQVEHDGQQAVSKSYALEISAHQKEHGSDI  359
MOUSE  Q08FX8  299  THIVNKDGTYMWTSWLLVMISALEEMMVVTCQVEHDGQQAEVIETHTVVVTEHQRVKGTST  358
                    * * ********** :*******  .*  . :::.*:**********   *  :::::: ::: **:.:*:.

HUMAN  Q00241  360  THEAALAPTAPLLVALLLGPKLLLLVVGVSAIYICWKQKA  398
MOUSE  Q08FX8  359  MSELKTAGIAKIPVAVLLGSKILLLLIAATVIYMRKKQMA  397
                       *   *  :  **:*** *:**:::.::.**:  **.:*
```

FIGURE 2

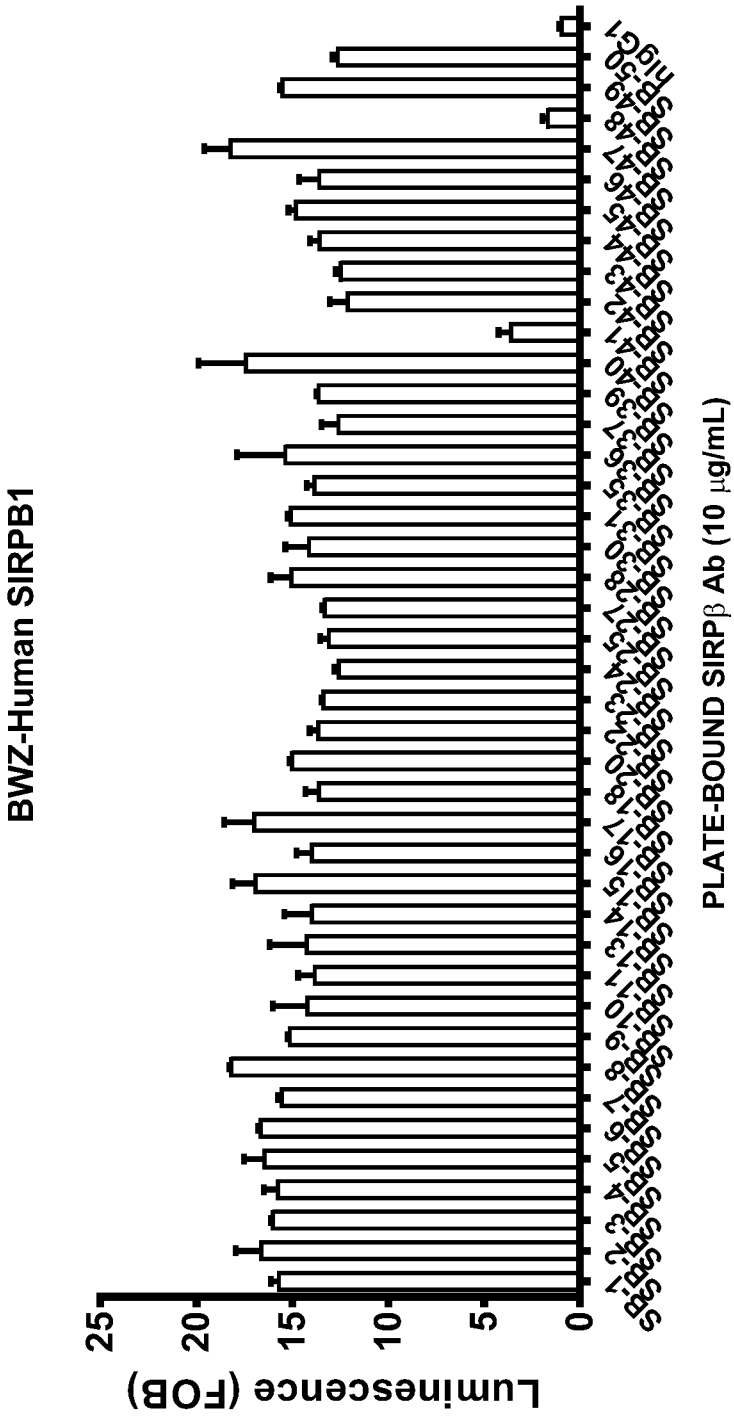

BWZ-Human SIRPB1
Luminescence (FOB)
25
20
15
10
5
0
PLATE-BOUND SIRPβ Ab (10 μg/mL)

FIGURE 3A

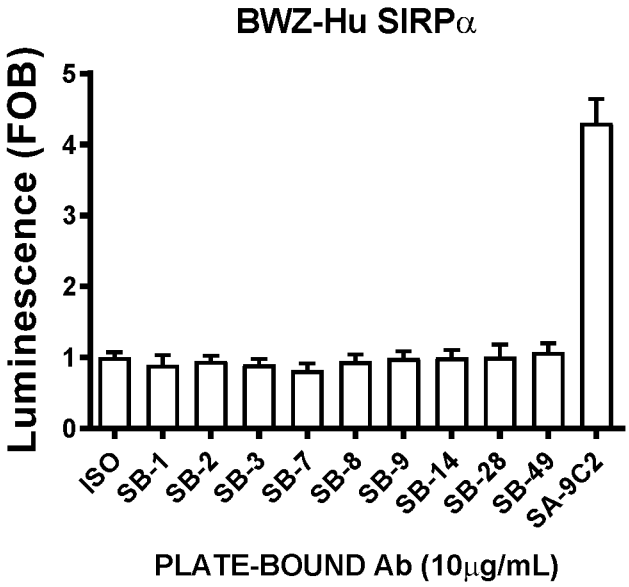

BWZ-Hu SIRPα
Luminescence (FOB)
0
1
2
3
4
5
ISO
SB-1
SB-2
SB-3
SB-7
SB-8
SB-9
SB-14
SB-28
SB-49
SA-9C2
PLATE-BOUND Ab (10μg/mL)

FIGURE 3B

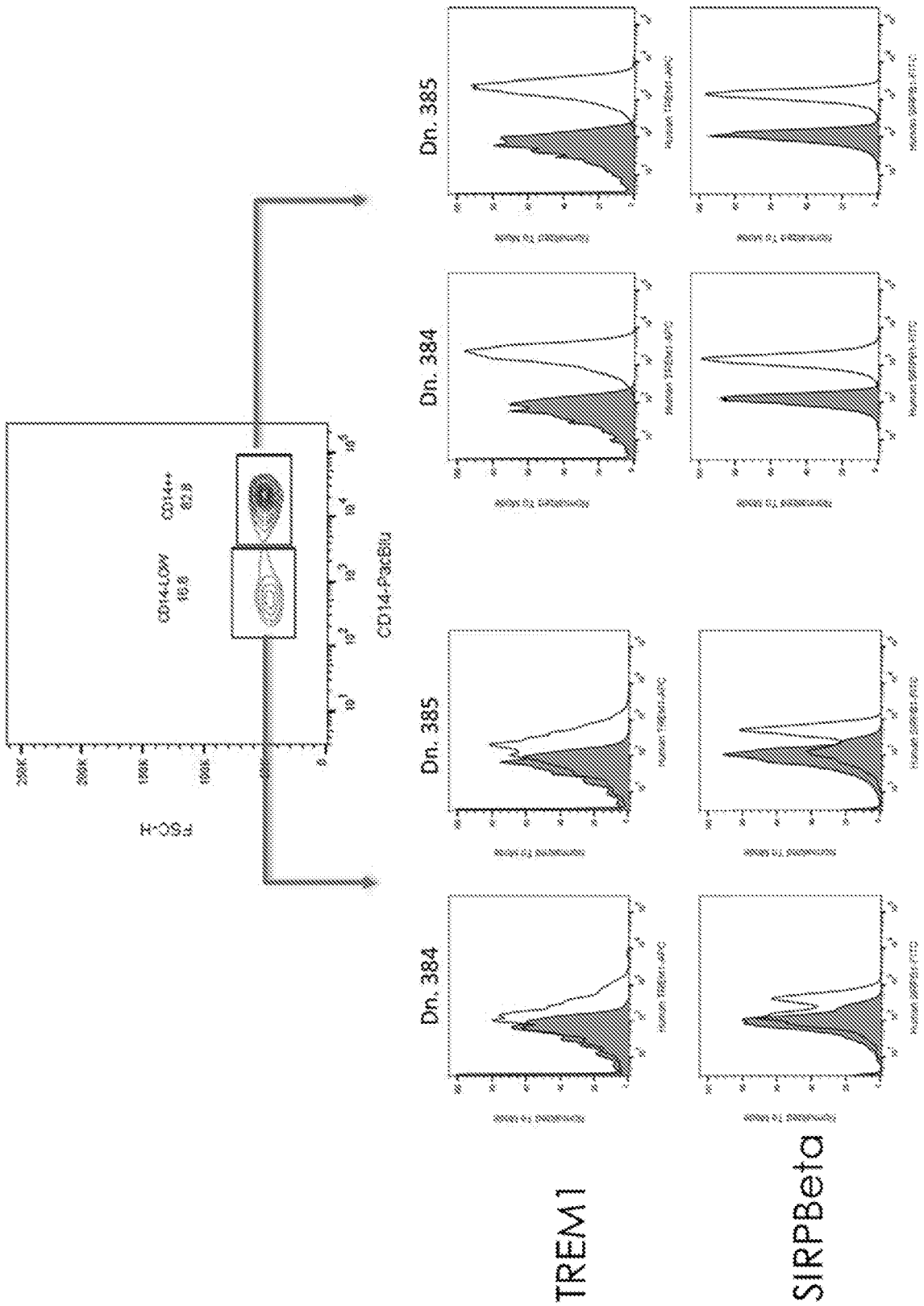

FSC-H
CD14-FacBlu
CD14LOW
16.8
CD14++
82.8
Dn. 384
Dn. 385
Dn. 384
Dn. 385
TREM1
SIRPBeta

FIGURE 4A

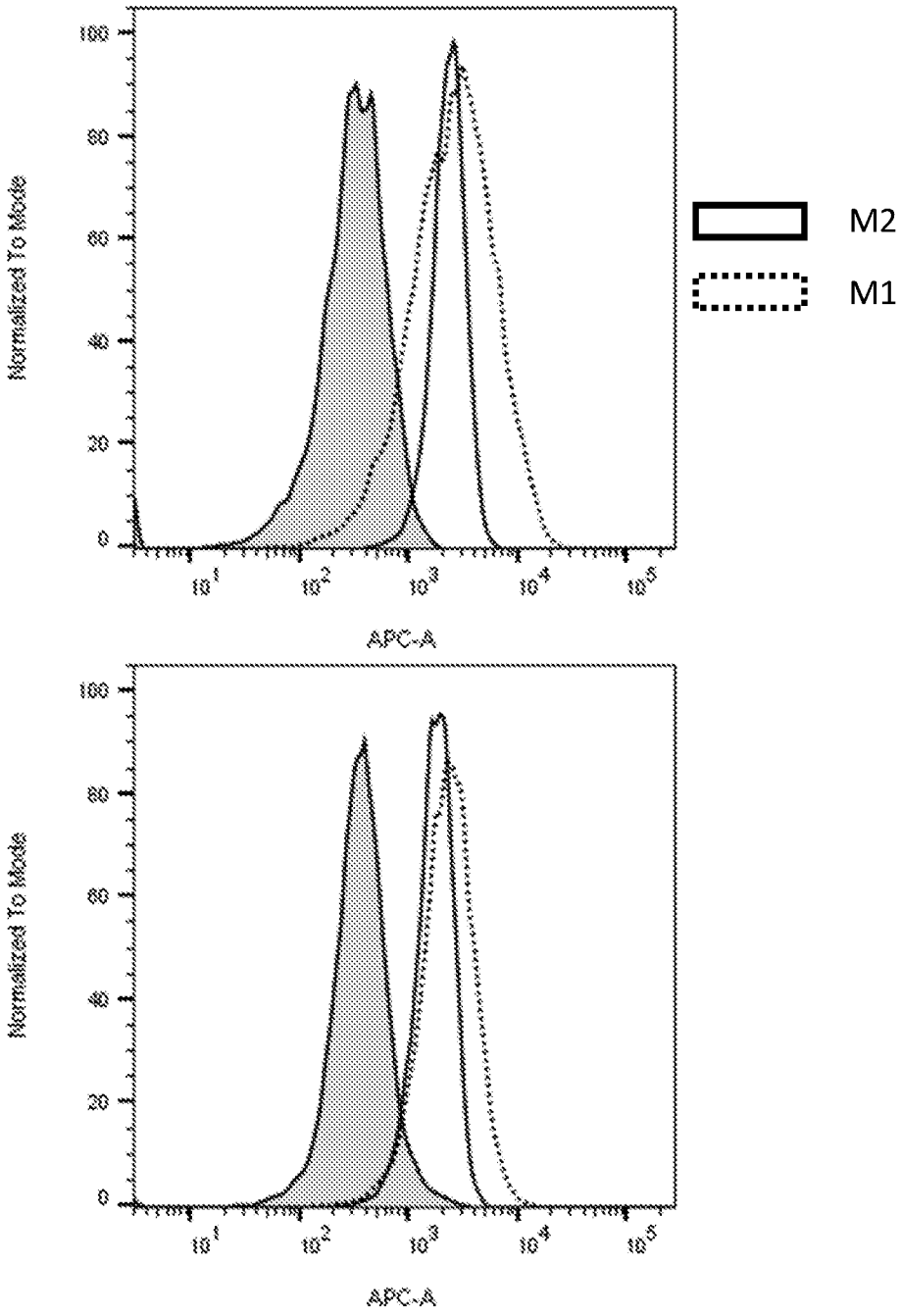

Normalized To Mode
100
80
60
40
20
0
10^1
10^2
10^3
10^4
10^5
APC-A
M2
M1
Normalized To Mode
100
80
60
40
20
0
10^1
10^2
10^3
10^4
10^5
APC-A

FIGURE 4B

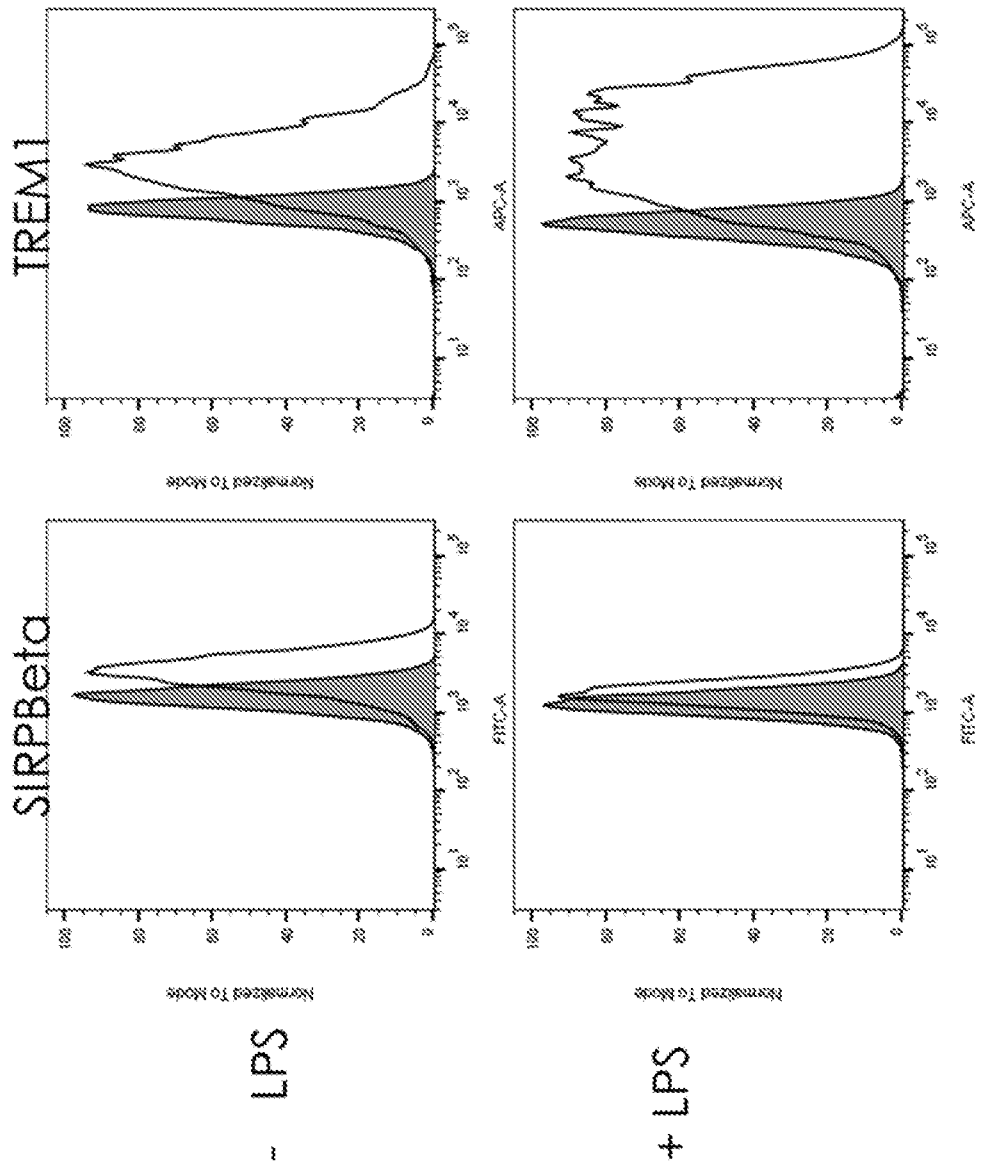


FIGURE 4C

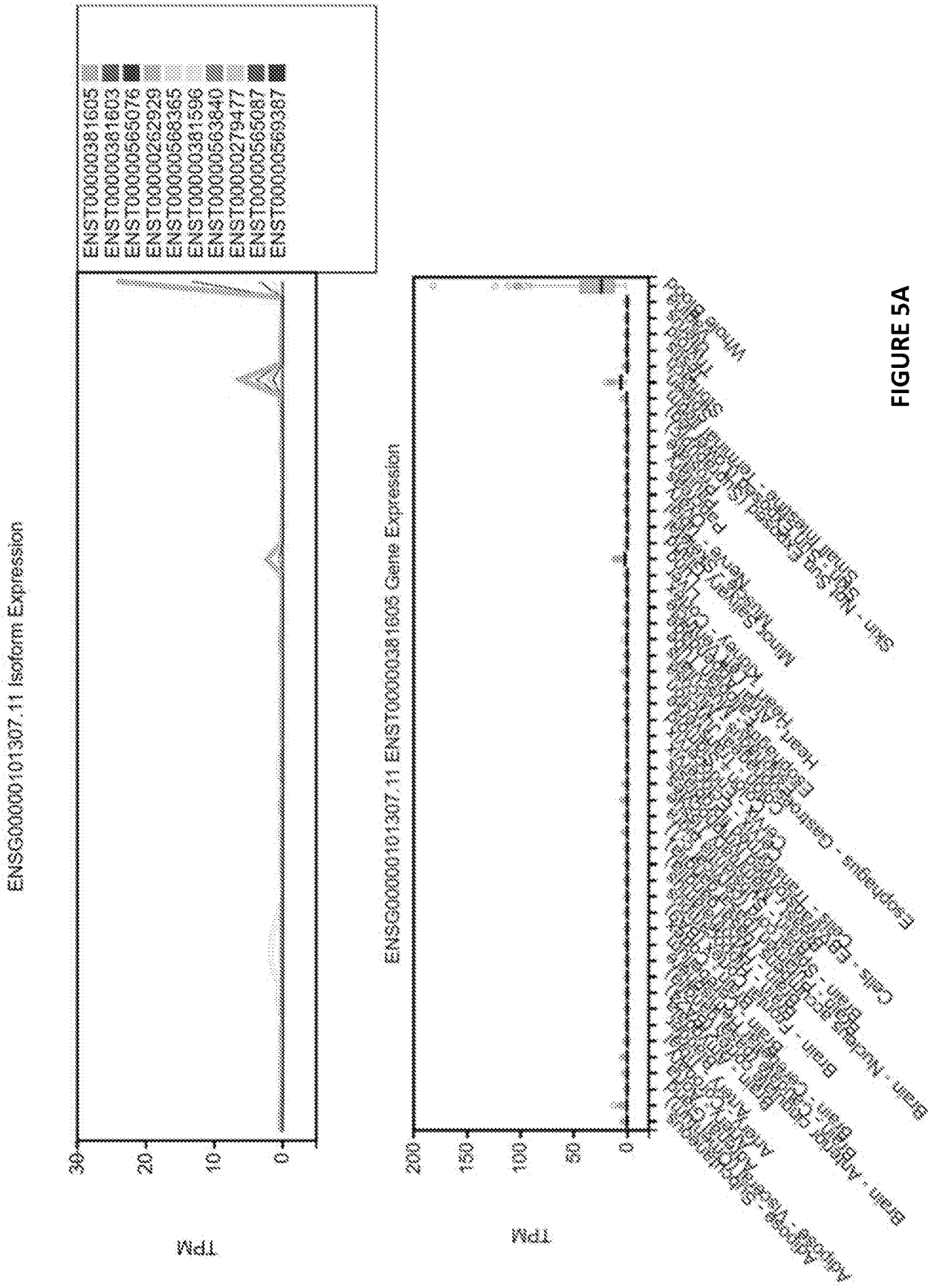

ENSG00000101307.11 Isoform Expression
ENST00000381605
ENST00000381603
ENST00000566079
ENST00000562929
ENST00000566365
ENST00000381596
ENST00000563640
ENST00000274477
ENST00000566087
ENST00000563387
TPM
30
20
10
0
ENSG00000101307.11 ENST00000381605 Gene Expression
TPM
200
150
100
50
0
Whole Blood
Adipose - Subcutaneous
Adipose - Visceral (Omentum)
Adrenal Gland
Artery - Aorta
Artery - Coronary
Artery - Tibial
Brain - Amygdala
Brain - Anterior cingulate cortex (BA24)
Brain - Caudate (basal ganglia)
Brain - Cerebellar Hemisphere
Brain - Cerebellum
Brain - Cortex
Brain - Frontal Cortex (BA9)
Brain - Hippocampus
Brain - Hypothalamus
Brain - Nucleus accumbens (basal ganglia)
Brain - Putamen (basal ganglia)
Brain - Spinal cord (cervical c-1)
Brain - Substantia nigra
Breast - Mammary Tissue
Cells - EBV-transformed lymphocytes
Cells - Transformed fibroblasts
Colon - Sigmoid
Colon - Transverse
Esophagus - Gastroesophageal Junction
Esophagus - Mucosa
Esophagus - Muscularis
Heart - Atrial Appendage
Heart - Left Ventricle
Kidney - Cortex
Liver
Lung
Minor Salivary Gland
Muscle - Skeletal
Nerve - Tibial
Ovary
Pancreas
Pituitary
Prostate
Skin - Not Sun Exposed (Suprapubic)
Skin - Sun Exposed (Lower leg)
Small Intestine - Terminal Ileum
Spleen
Stomach
Testis
Thyroid
Uterus
Vagina
Whole Blood

FIGURE 5A

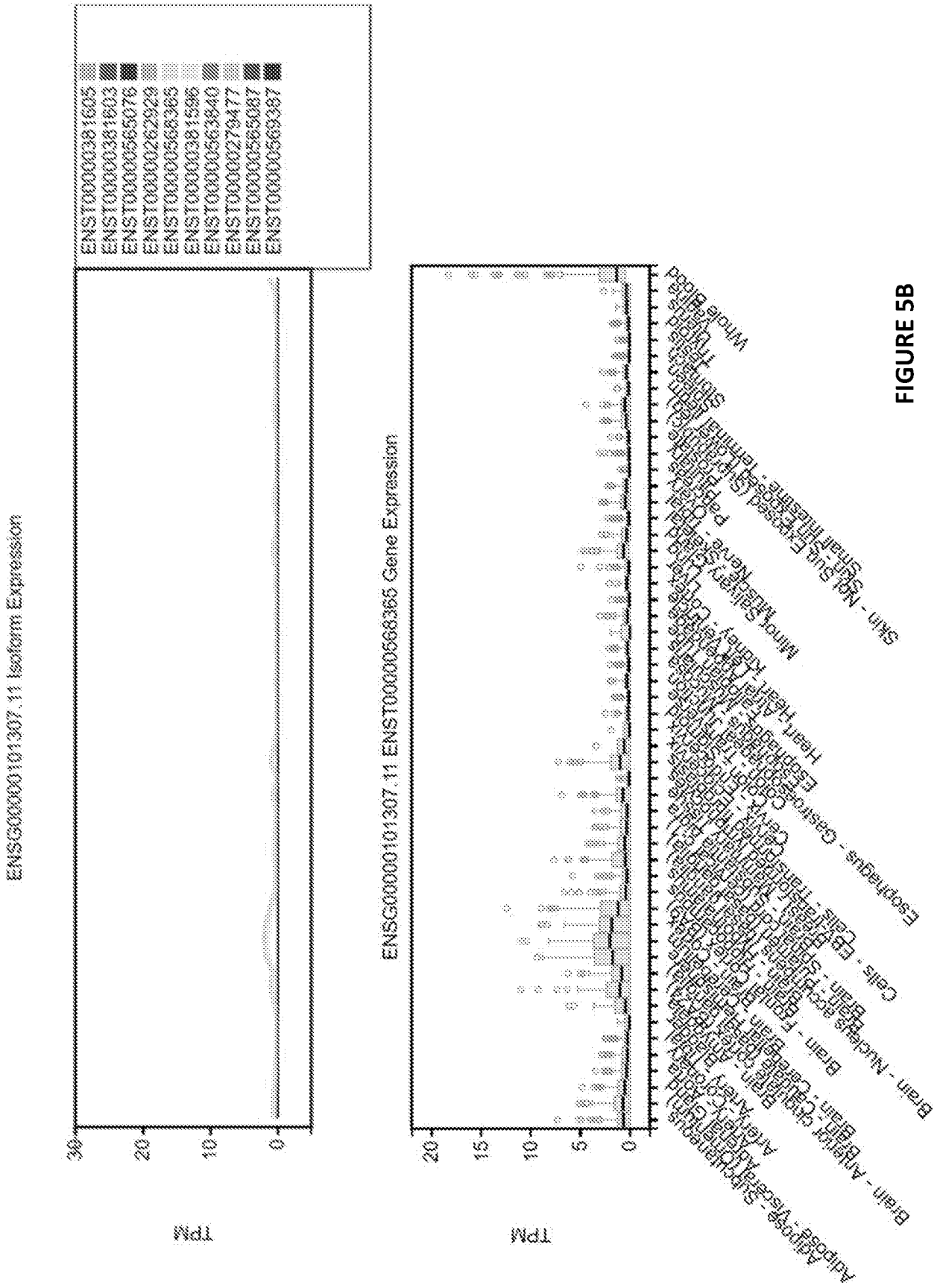
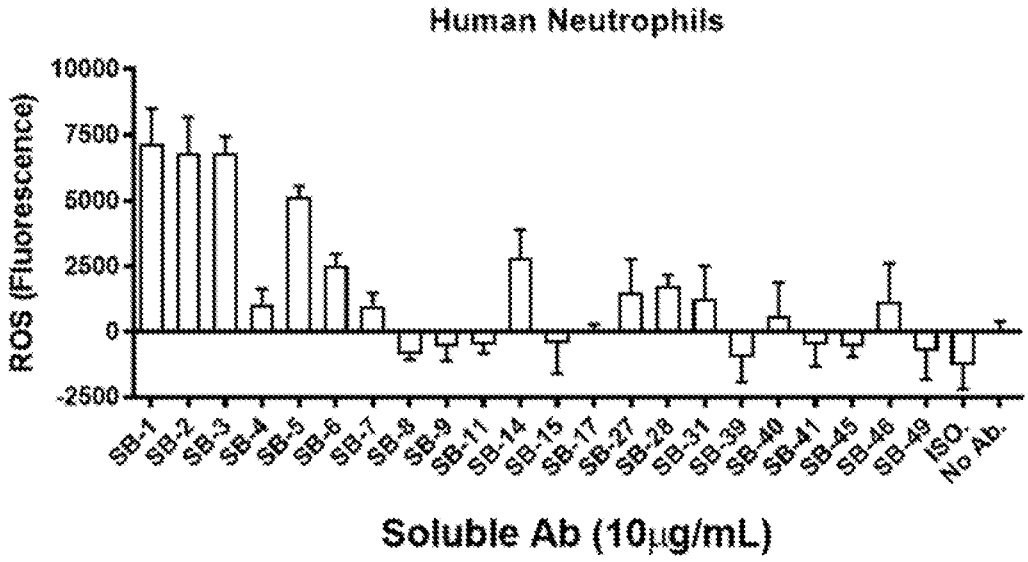

ENSG00000101307.11 Isoform Expression
ENST00000381605
ENST00000381603
ENST00000565076
ENST00000229529
ENST00000566365
ENST00000381596
ENST00000563840
ENST00000270477
ENST00000585087
ENST00000563387
TPM
30
20
10
0
ENSG00000101307.11 ENST00000566365 Gene Expression
TPM
20
15
10
5
0
Adipose - Subcutaneous
Adipose - Visceral (Omentum)
Artery - Aorta
Brain - Amygdala
Brain - Anterior cingulate cortex (BA24)
Brain - Caudate (basal ganglia)
Brain - Cerebellar Hemisphere
Brain - Cerebellum
Brain - Cortex
Brain - Frontal Cortex (BA9)
Brain - Hippocampus
Brain - Hypothalamus
Brain - Nucleus accumbens (basal ganglia)
Brain - Putamen (basal ganglia)
Brain - Spinal cord (cervical c-1)
Brain - Substantia nigra
Cells - EBV-transformed lymphocytes
Cells - Transformed fibroblasts
Colon - Sigmoid
Colon - Transverse
Esophagus - Gastroesophageal Junction
Esophagus - Mucosa
Esophagus - Muscularis
Heart - Atrial Appendage
Heart - Left Ventricle
Minor Salivary Gland
Muscle - Skeletal
Nerve - Tibial
Pancreas
Pituitary
Skin - Not Sun Exposed (Suprapubic)
Skin - Sun Exposed (Lower leg)
Small Intestine - Terminal Ileum
Spleen
Stomach
Testis
Thyroid
Uterus
Vagina
Whole Blood

FIGURE 5B


Human Neutrophils
ROS (Fluorescence)
10000
7500
5000
2500
0
-2500
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-11
SB-14
SB-15
SB-17
SB-27
SB-28
SB-31
SB-39
SB-40
SB-41
SB-45
SB-46
SB-49
ISO.
No Ab.
Soluble Ab (10μg/mL)

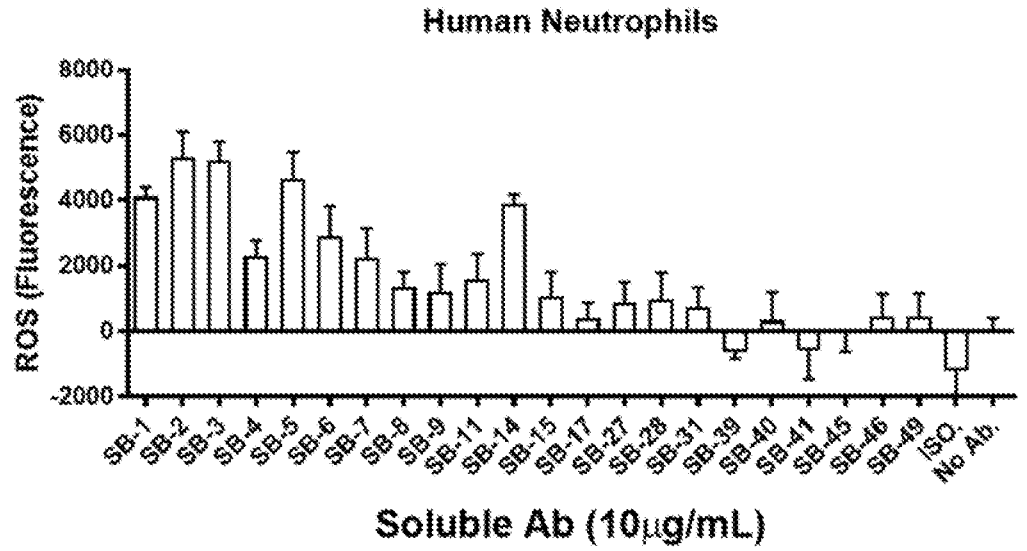
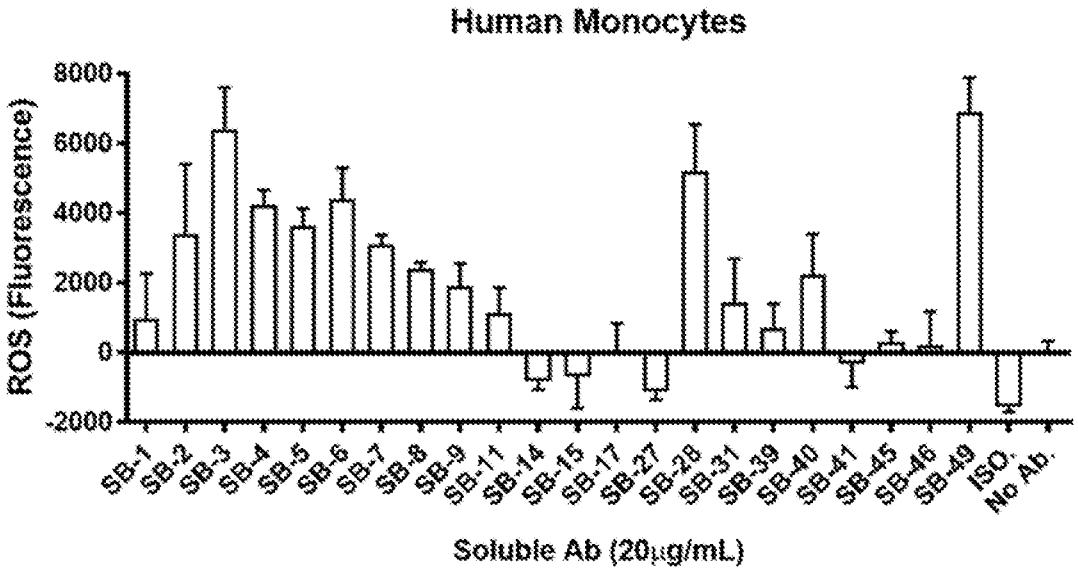

Human Neutrophils
ROS (Fluorescence)
8000
6000
4000
2000
0
-2000
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-11
SB-14
SB-15
SB-17
SB-27
SB-28
SB-31
SB-39
SB-40
SB-41
SB-45
SB-46
SB-49
ISO.
No Ab.
Soluble Ab (10μg/mL)

FIGURE 6A


Human Monocytes
ROS (Fluorescence)
8000
6000
4000
2000
0
-2000
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-11
SB-14
SB-15
SB-17
SB-27
SB-28
SB-31
SB-39
SB-40
SB-41
SB-45
SB-46
SB-49
ISO.
No Ab.
Soluble Ab (20μg/mL)

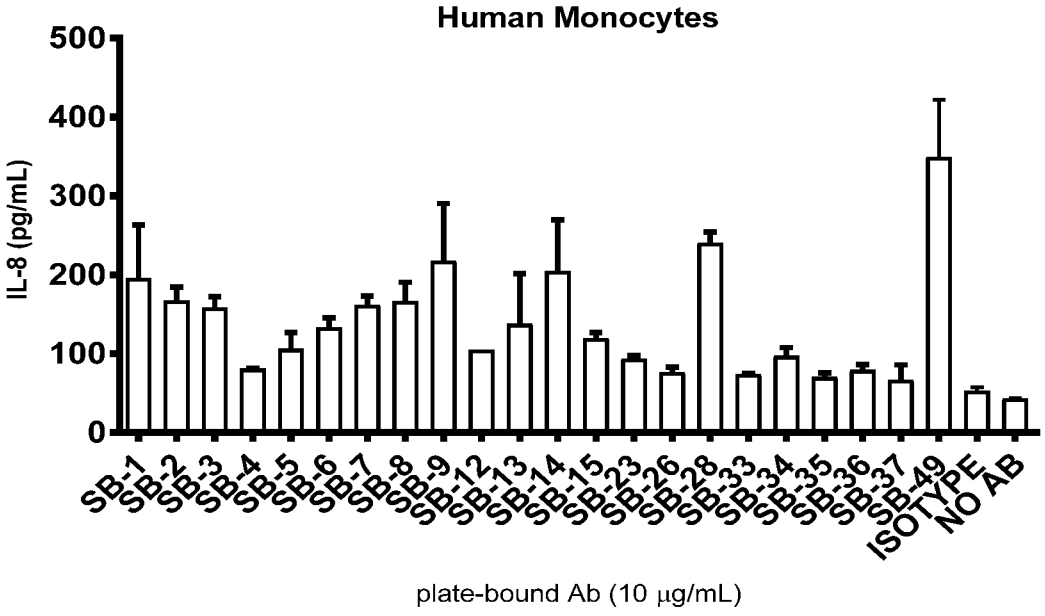
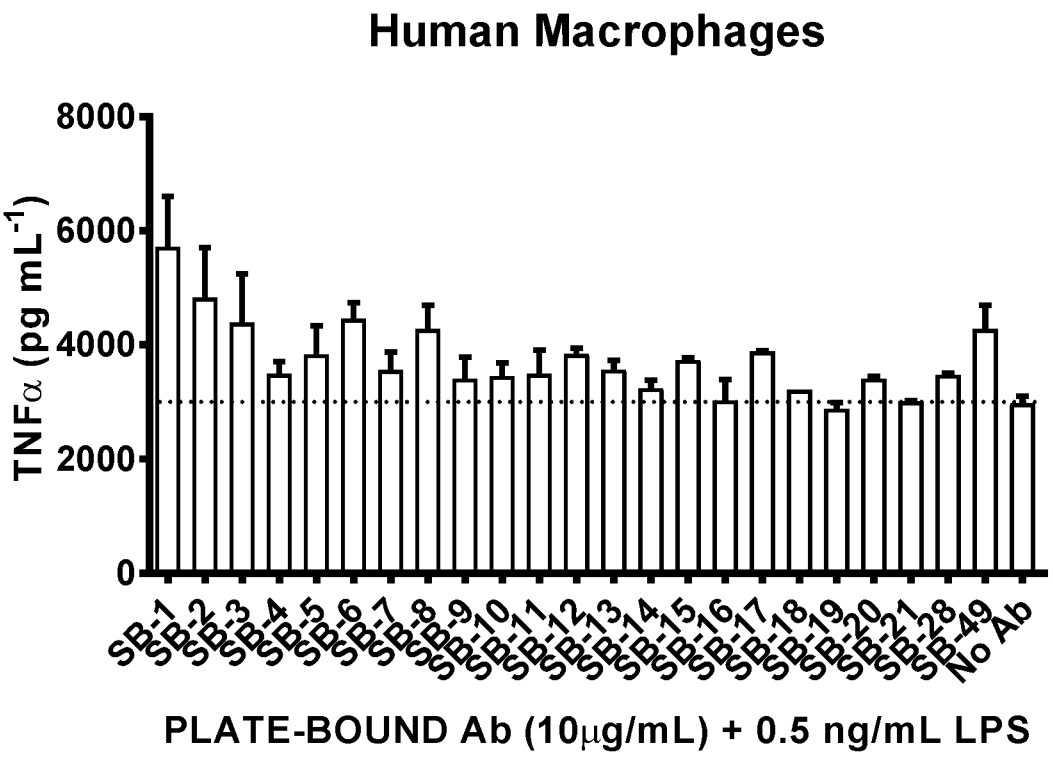

Human Monocytes
IL-8 (pg/mL)
500
400
300
200
100
0
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-12
SB-13
SB-14
SB-15
SB-23
SB-26
SB-28
SB-33
SB-34
SB-35
SB-36
SB-37
SB-49
ISOTYPE
NO AB
plate-bound Ab (10 μg/mL)

FIGURE 6B


Human Macrophages
TNFα (pg mL-1)
8000
6000
4000
2000
0
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-9
SB-10
SB-11
SB-12
SB-13
SB-14
SB-15
SB-16
SB-17
SB-18
SB-19
SB-20
SB-21
SB-28
SB-49
No Ab
PLATE-BOUND Ab (10μg/mL) + 0.5 ng/mL LPS

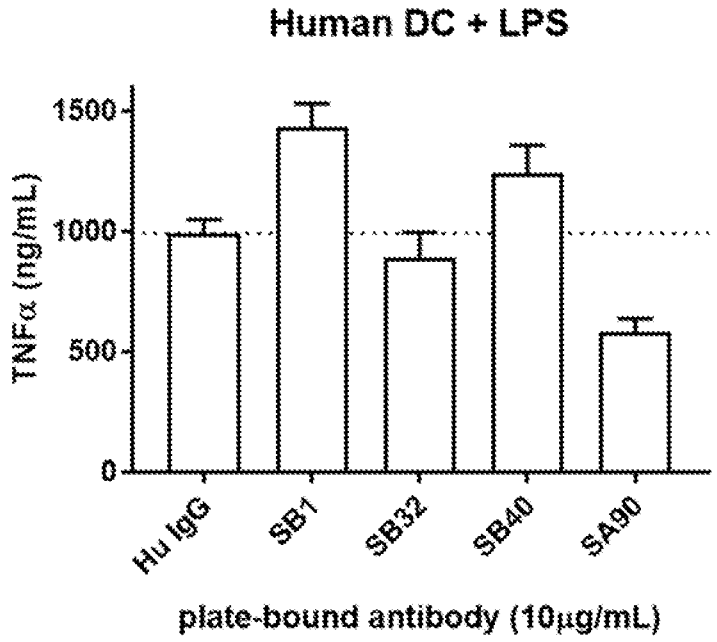

Human DC + LPS
TNFα (ng/mL)
1500
1000
500
0
Hu IgG
SB1
SB32
SB40
SA90
plate-bound antibody (10μg/mL)

FIGURE 6C

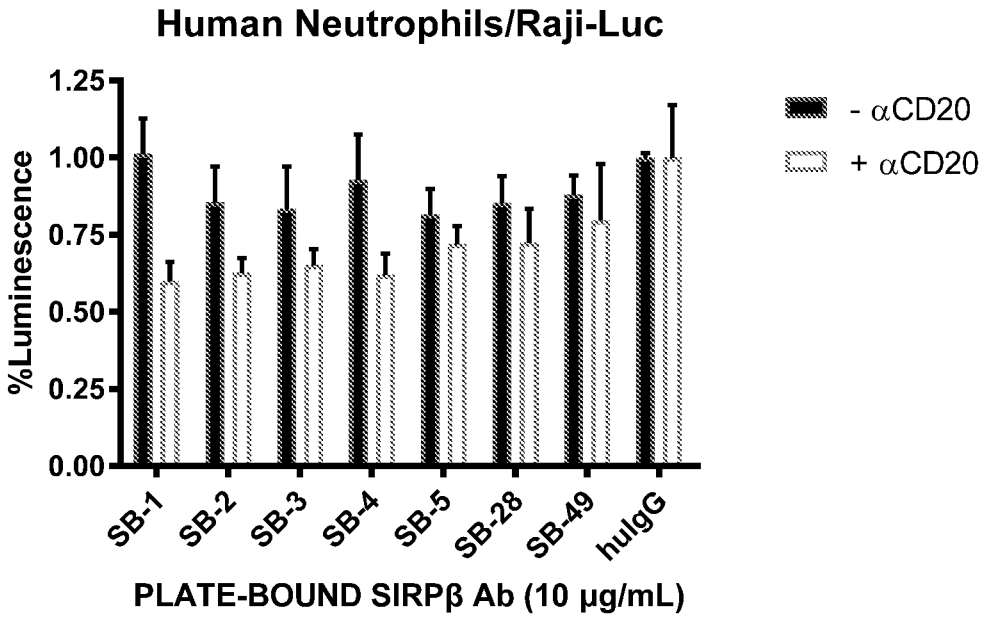
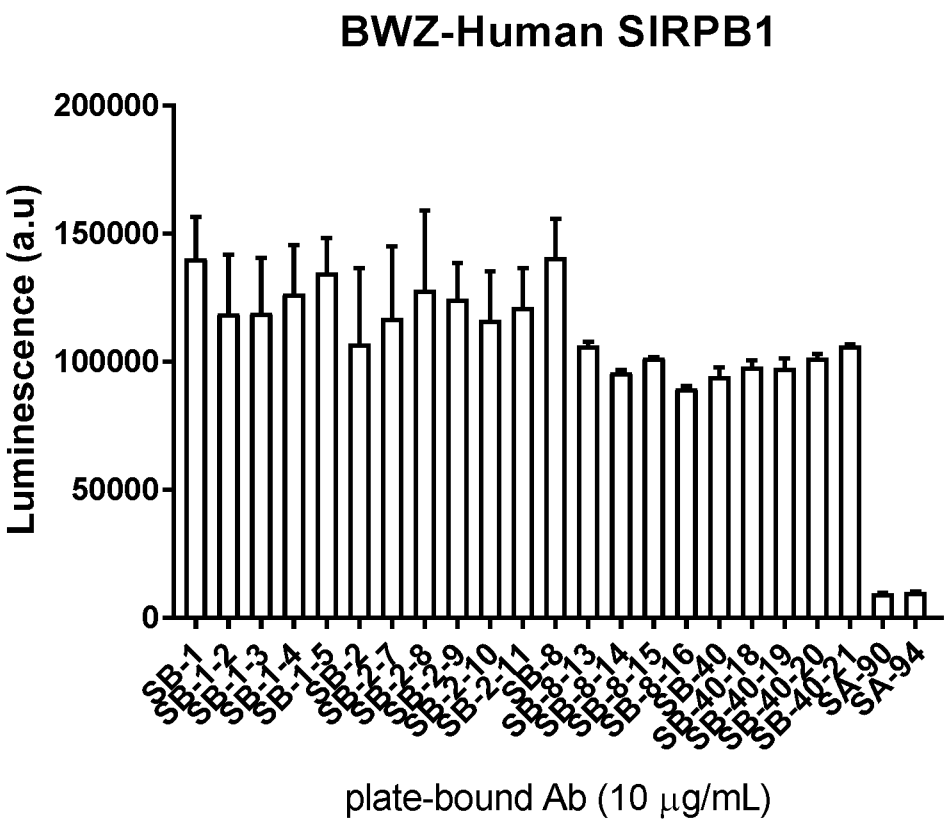

Human Neutrophils/Raji-Luc
%Luminescence
1.25
1.00
0.75
0.50
0.25
0.00
SB-1
SB-2
SB-3
SB-4
SB-5
SB-28
SB-49
hulgG
PLATE-BOUND SIRPβ Ab (10 µg/mL)
- αCD20
+ αCD20

FIGURE 7


BWZ-Human SIRPB1
Luminescence (a.u)
200000
150000
100000
50000
0
SB-1
SB-1-2
SB-1-3
SB-1-4
SB-1-5
SB-2
SB-2-7
SB-2-8
SB-2-9
SB-2-10
SB-2-11
SB-8
SB-8-13
SB-8-14
SB-8-15
SB-8-16
SB-40
SB-40-18
SB-40-19
SB-40-20
SB-40-21
SA-90
SA-94
plate-bound Ab (10 μg/mL)

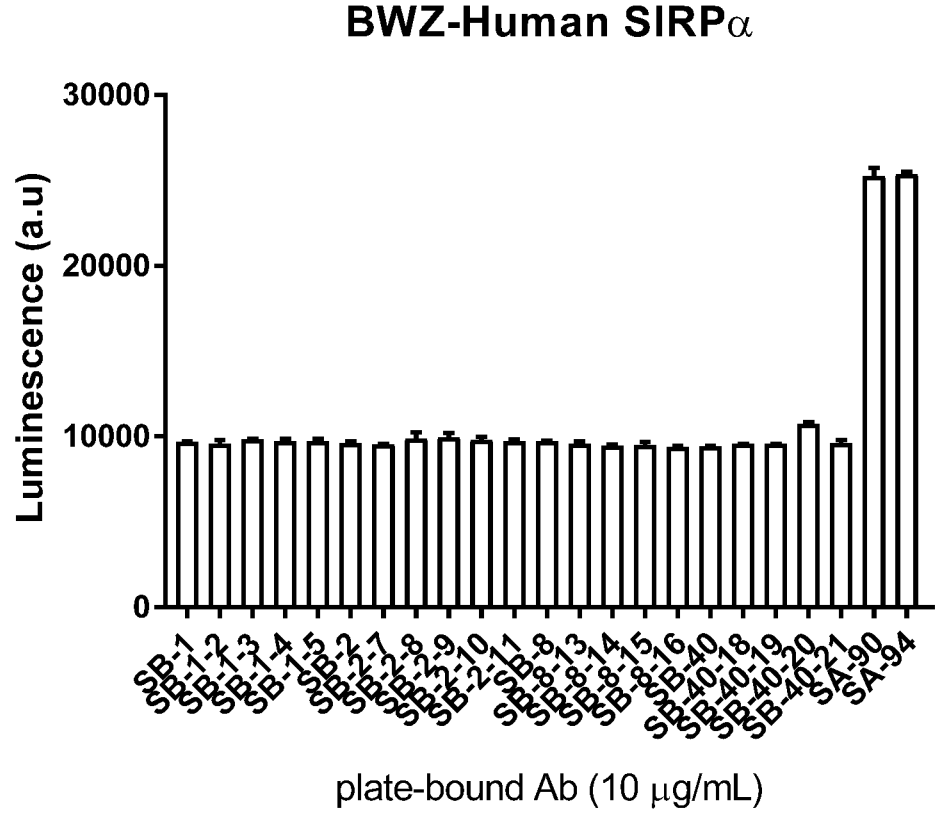
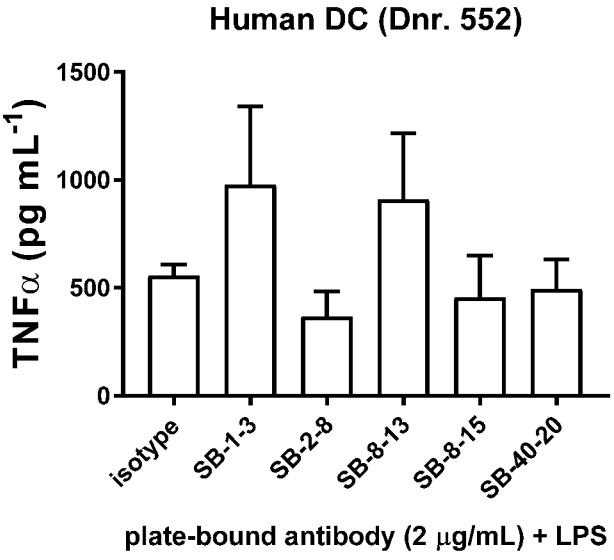
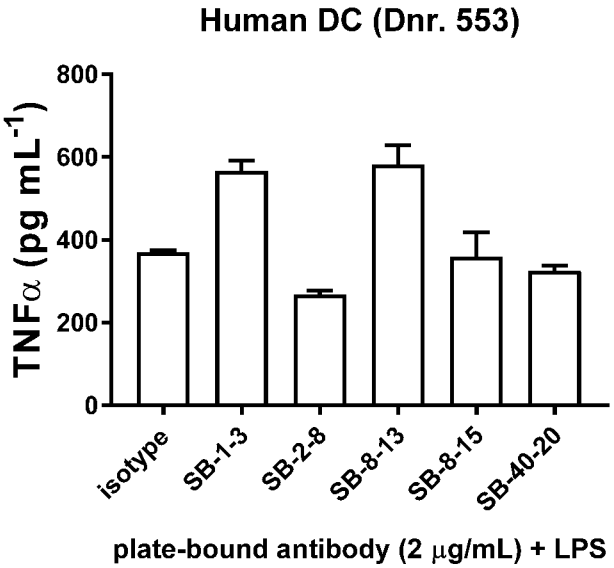

BWZ-Human SIRPα
Luminescence (a.u)
30000
20000
10000
0
SB-1
SB-1-2
SB-1-3
SB-1-4
SB-1-5
SB-2
SB-2-7
SB-2-8
SB-2-9
SB-2-10
SB-2-11
SB-8
SB-8-13
SB-8-14
SB-8-15
SB-8-16
SB-40
SB-40-18
SB-40-19
SB-40-20
SB-40-21
SA-90
SA-94
plate-bound Ab (10 μg/mL)

FIGURE 8


Human DC (Dnr. 552)
TNFα (pg mL-1)
1500
1000
500
0
isotype
SB-1-3
SB-2-8
SB-8-13
SB-8-15
SB-40-20
plate-bound antibody (2 μg/mL) + LPS


Human DC (Dnr. 553)
TNFα (pg mL-1)
800
600
400
200
0
isotype
SB-1-3
SB-2-8
SB-8-13
SB-8-15
SB-40-20
plate-bound antibody (2 μg/mL) + LPS

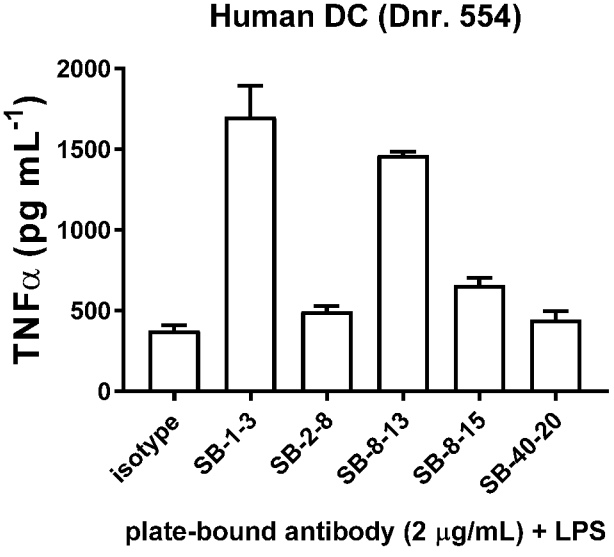

Human DC (Dnr. 554)
TNFα (pg mL-1)
2000
1500
1000
500
0
isotype
SB-1-3
SB-2-8
SB-8-13
SB-8-15
SB-40-20
plate-bound antibody (2 μg/mL) + LPS

FIGURE 9

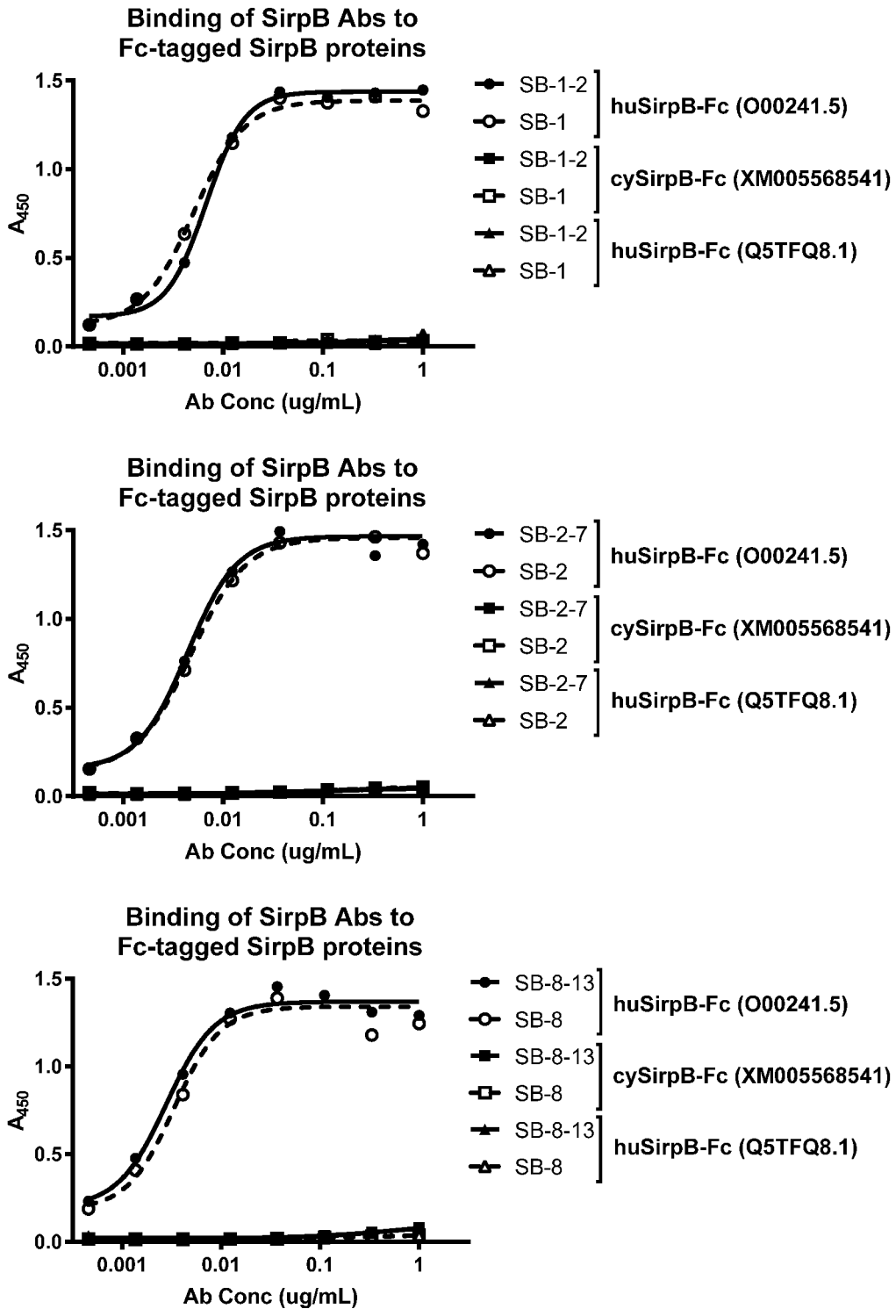

Binding of SirpB Abs to
Fc-tagged SirpB proteins
A450
1.5
1.0
0.5
0.0
0.001
0.01
0.1
1
Ab Conc (ug/mL)
SB-1-2
SB-1
SB-1-2
SB-1
SB-1-2
SB-1
huSirpB-Fc (O00241.5)
cySirpB-Fc (XM005568541)
huSirpB-Fc (Q5TFQ8.1)
Binding of SirpB Abs to
Fc-tagged SirpB proteins
A450
1.5
1.0
0.5
0.0
0.001
0.01
0.1
1
Ab Conc (ug/mL)
SB-2-7
SB-2
SB-2-7
SB-2
SB-2-7
SB-2
huSirpB-Fc (O00241.5)
cySirpB-Fc (XM005568541)
huSirpB-Fc (Q5TFQ8.1)
Binding of SirpB Abs to
Fc-tagged SirpB proteins
A450
1.5
1.0
0.5
0.0
0.001
0.01
0.1
1
Ab Conc (ug/mL)
SB-8-13
SB-8
SB-8-13
SB-8
SB-8-13
SB-8
huSirpB-Fc (O00241.5)
cySirpB-Fc (XM005568541)
huSirpB-Fc (Q5TFQ8.1)

FIGURE 10A

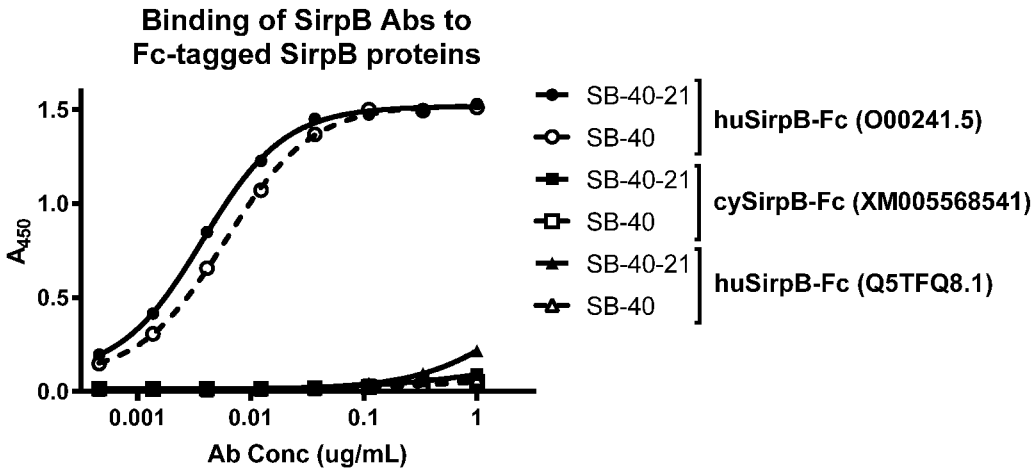


FIGURE 10B

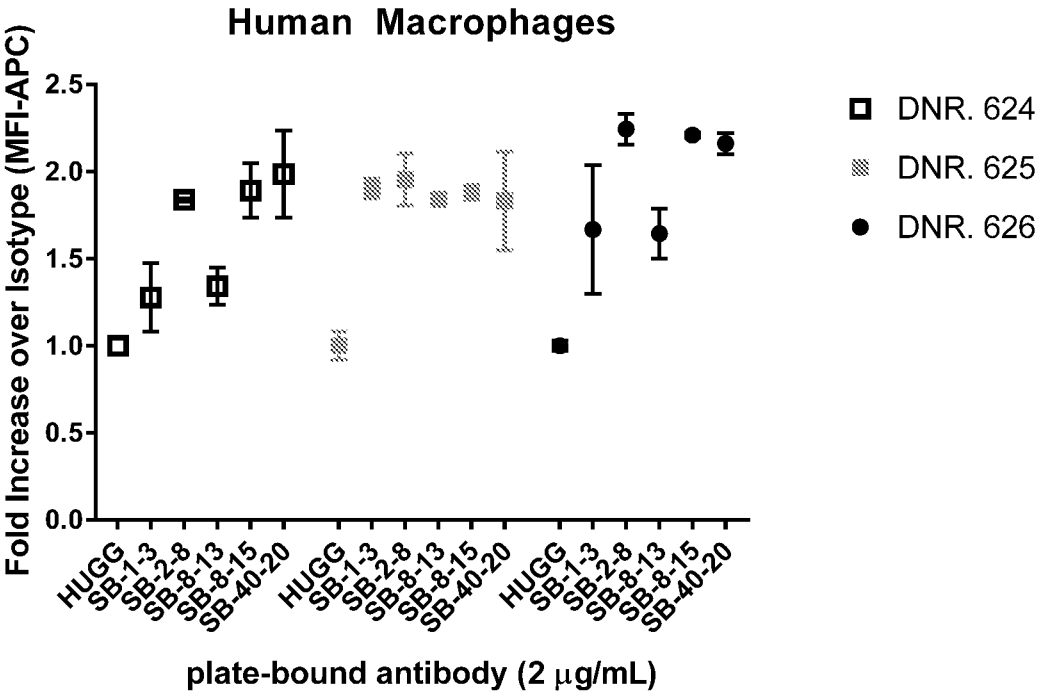


FIGURE 11A

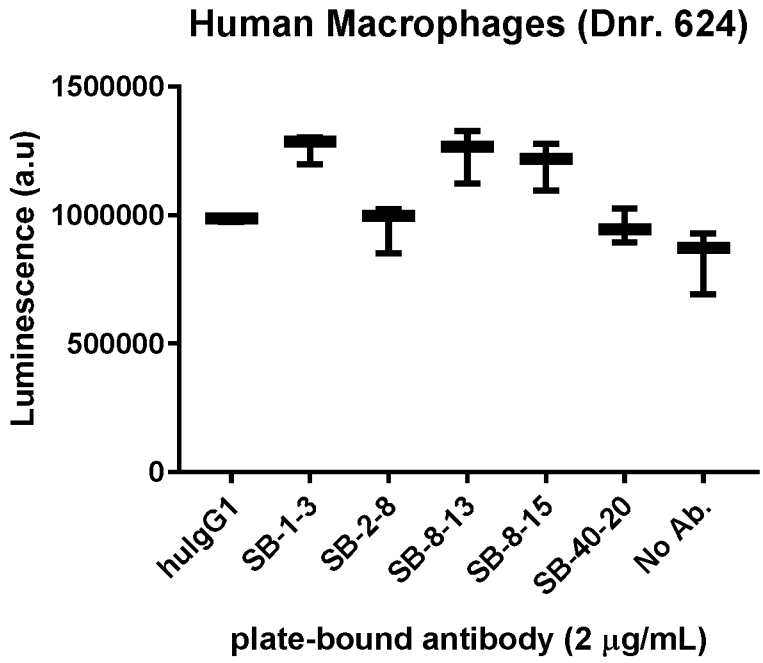

Human Macrophages (Dnr. 624)
Luminescence (a.u)
1500000
1000000
500000
0
huIgG1
SB-1-3
SB-2-8
SB-8-13
SB-8-15
SB-40-20
No Ab.
plate-bound antibody (2 μg/mL)

FIGURE 11B

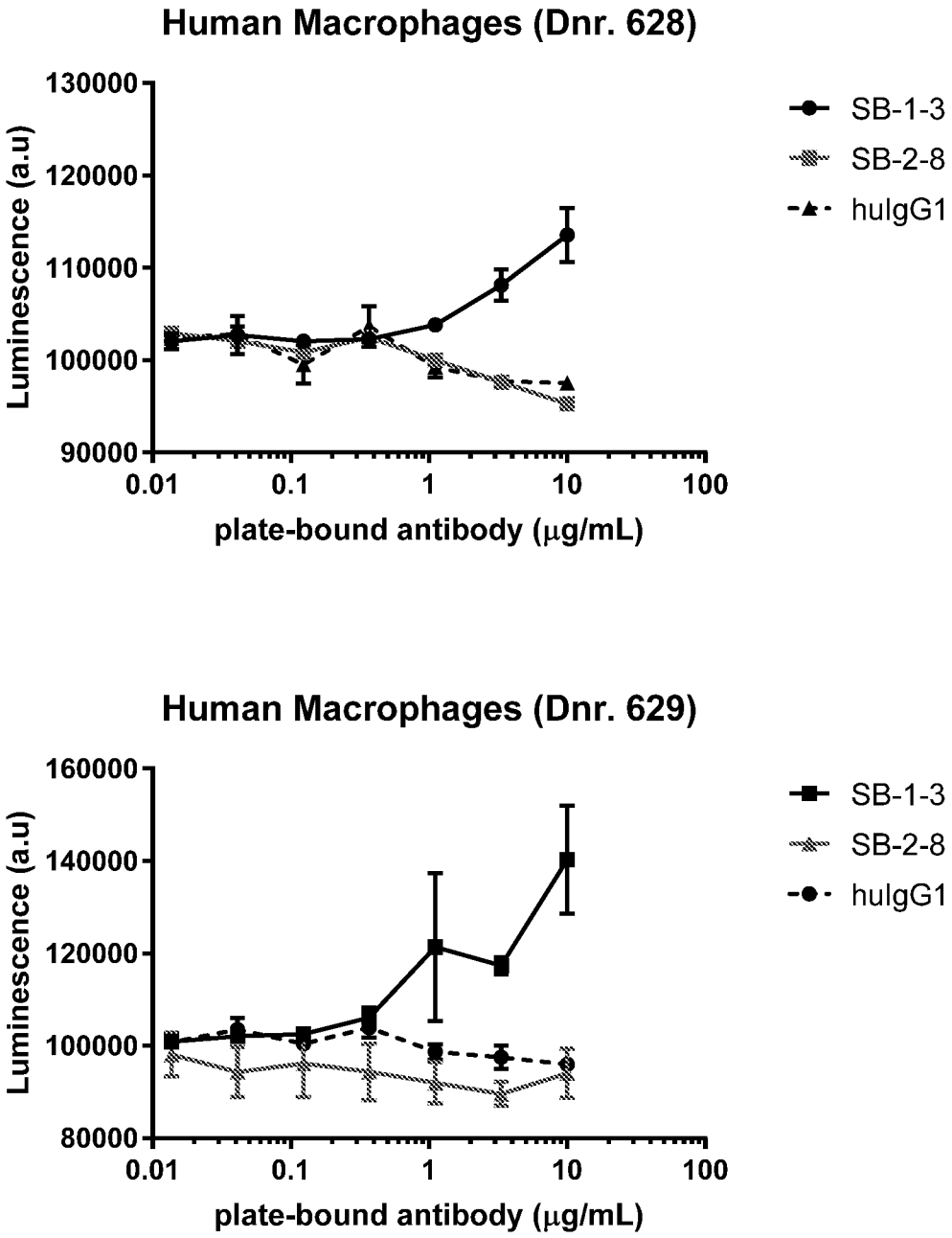

Human Macrophages (Dnr. 628)
Luminescence (a.u)
130000
120000
110000
100000
90000
0.01
0.1
1
10
100
plate-bound antibody (μg/mL)
SB-1-3
SB-2-8
hulgG1
Human Macrophages (Dnr. 629)
Luminescence (a.u)
160000
140000
120000
100000
80000
0.01
0.1
1
10
100
plate-bound antibody (μg/mL)
SB-1-3
SB-2-8
hulgG1

FIGURE 12

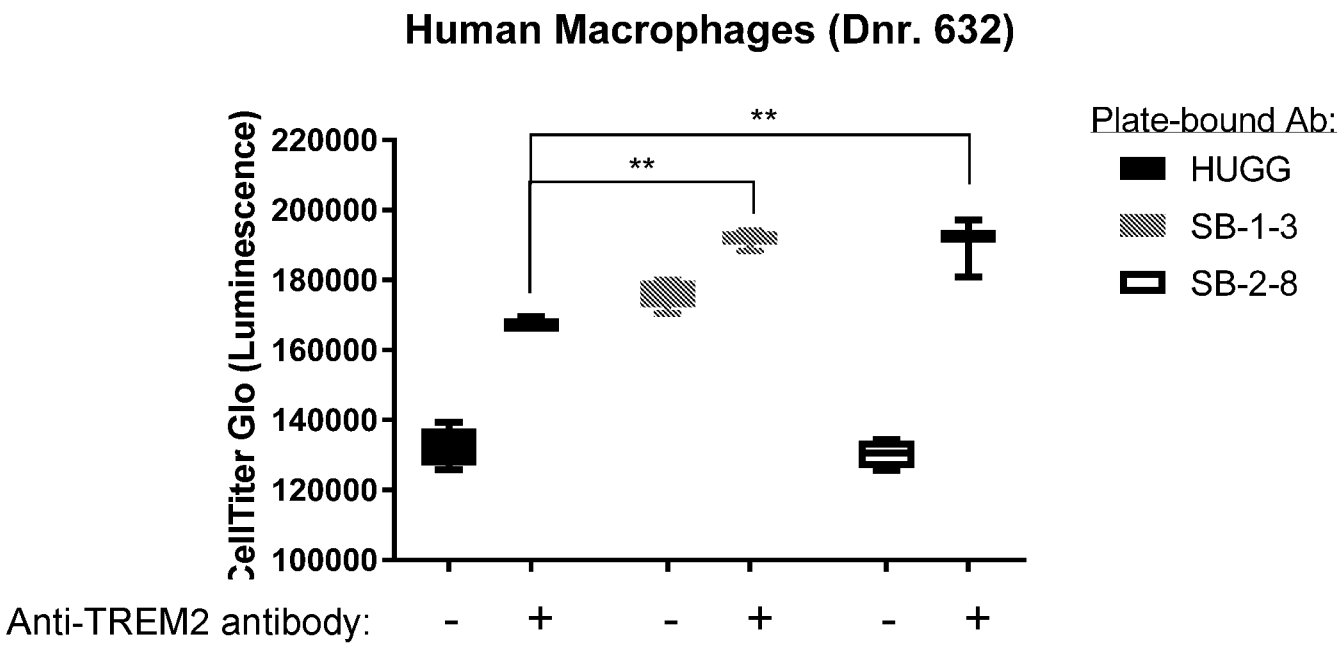


FIGURE 13

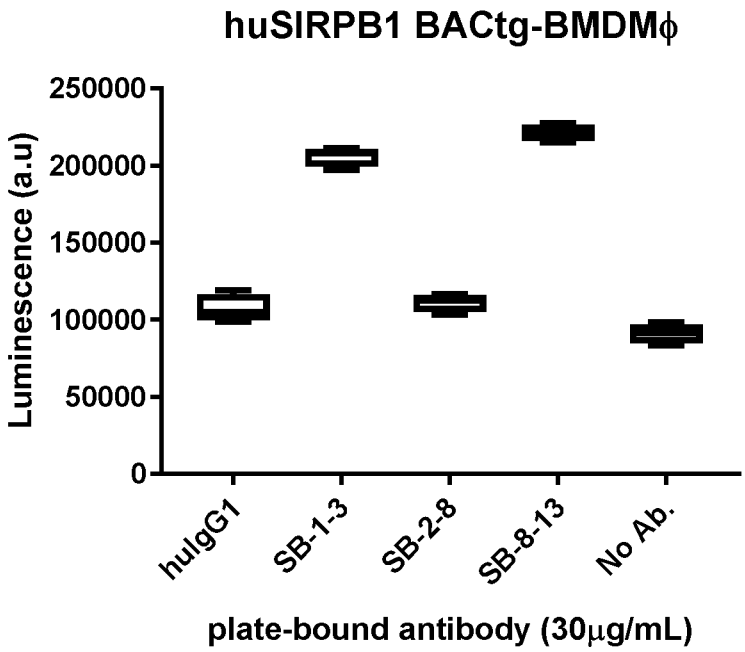


FIGURE 14A

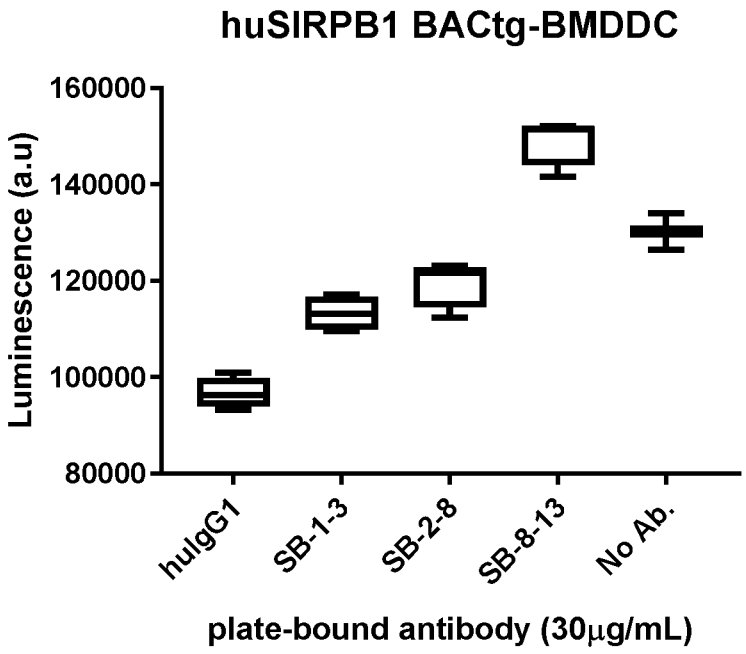


FIGURE 14B

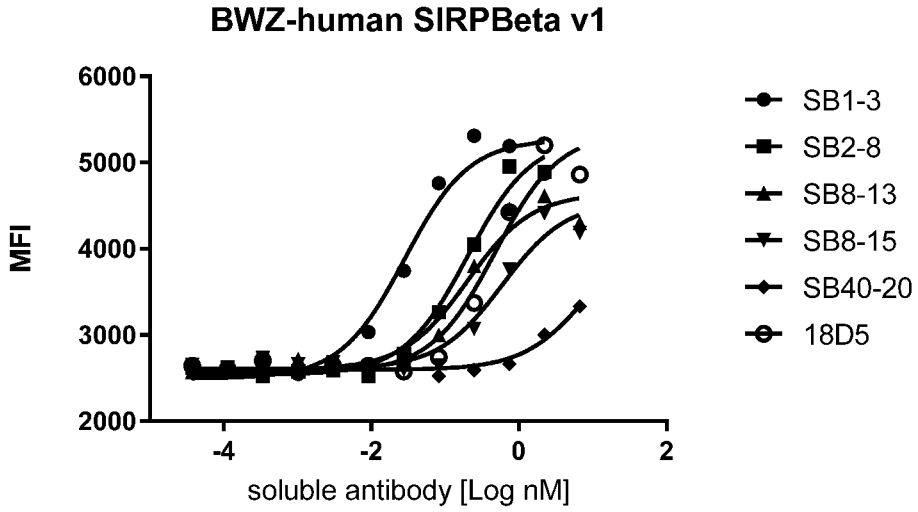


FIGURE 15A

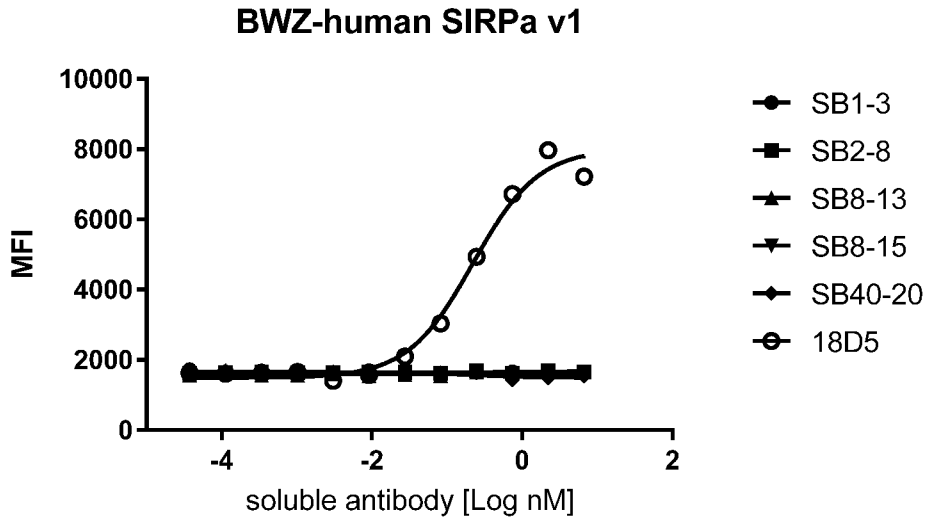


FIGURE 15B

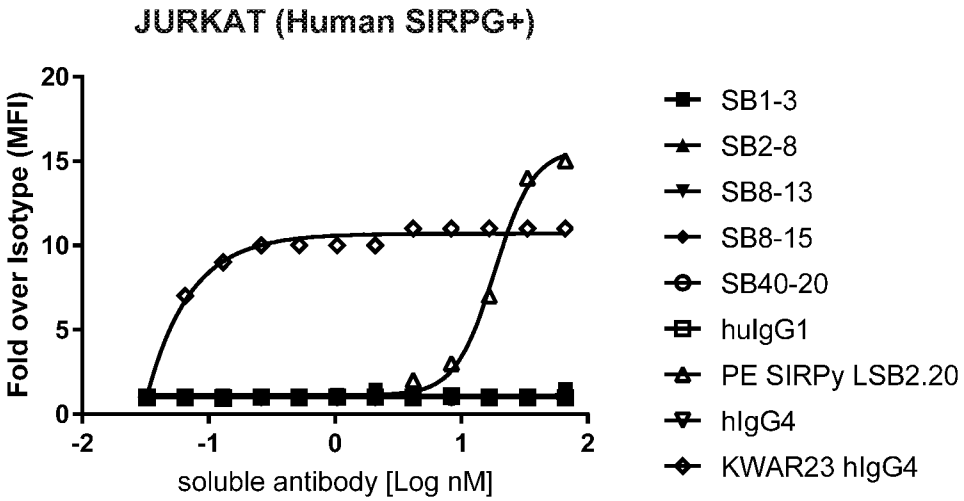


FIGURE 15C