

FIGURE 1

Human	100.0%	EEELVIOQKESVLAAGETATETCTATSLIPYQPIQFQKAGGEGELLVYQKQCHETPRV
Cyno	88.6%	EEELVIOQKESVVAAGGATLNTVSSLIYVQZIIYQFQKAGGEGELLVYQKQCHETPRV
Marmoset	86.0%	EEELVIOQKESVVAAGETATLHCTVTIYVQZIIYQFQKAGGEGELLVYQKQCHETPRV
Rabbit	71.2%	QELVIOQKESVVAAGETATLCTIYVLLPVQKQFQKAGGEGEDDNIYHFKQDQDPRV
Dog	71.8%	RAELVIOQKESVVAAGETATLCTIYVLLPVQKQFQKAGGEGELLVYHFKQCHETPRV
		* : *** **; : * * *; : *** ** :; *** : : : ***; : * : * : *
Human	100.0%	TVSDITKRNMMFSIRIGNITFADAGTYVCYFKGSPQVYFKSGAGTSLSVAKFSA
Cyno	88.6%	TVSDITKRNMMFSIRIGNITFADAGTYVCYFKGSPD-VELASGAGTSLSVAKFSA
Marmoset	86.0%	TAVADITKRNMMFSIRIGNITFADAGTYVCYFKGSEFIYVELASGAGTSLSVAKFSA
Rabbit	71.2%	TWSDITKRNMMFSIRIEDITFADAGTYVCYQKQKAGDDEFFNGSGSTLVYSAKFST
Dog	71.8%	TWSDITKRNMMFSIRIGNITFADAGTYVCYQKQKQNF-VELKSGSTLVYSAKFSP
		* *; * * * * * *; * * * *; : * * * *; * *; *; * * * *; : *; * * * *; *
Human	100.0%	PVSGPAAKATPQRTVPTCSHGSPSPDITLWPKNNNELSGQTNVDVAGSVSYSHH
Cyno	88.6%	PVSGPAAKATPQRTVPTCSHGSPSPDITLWPKNNNELSGQTNVDVAGKSVSYSHH
Marmoset	86.0%	PVSGPAAKATPQRTVPTCSHGSPSPDITLWPKNNNELSGALOTVDVAGSVSYSHH
Rabbit	71.2%	PRVSGPAAKATPQRTVPTCSHGSPSPDITLWPKNNNELSAFQSVYFAGSVSYSHH
Dog	71.8%	PVSGPAAKATPQRTVPTCSHGSPSPDITLWPKNNNELSAQSVYFAGSVSYSHH
		* * * * * *; * *; : *; : *; : *; : *; : *; : *; : *; : *; : *; : *
Human	100.0%	STAKVLLREDVDSQICEVAVPTLQG-DELEGTANLSEILAVPTTEVTCQPVAAEQV
Cyno	88.6%	STAKVLLREDVDSQICEVAVPTLQG-DELEGTANLSEILAVPTTEVTCQPVAAEQV
Marmoset	86.0%	STAKVLLREDVDSQICEVAVPTLQG-DELEGTANLSEILAVPTTEVTCQPVAAEQV
Rabbit	71.2%	STAKVLLREDVDSQICEVAVPTLQG-DELEGTANLSEILAVPTTEVTCQPVAAEQV
Dog	71.8%	STAKVLLREDVDSQICEVAVPTLQG-DELEGTANLSEILAVPTTEVTCQPVAAEQV
		*; : *; : *; : *; : *; : *; : *; : *; : *; : *; : *; : *
Human	100.0%	WTCQVRRPYQRIQLTWLEKQNVSTKASVT---ENKDOTYWRASNLVNSAHRDQ
Cyno	88.6%	WTCQVRRPYQRIQLTWLEKQNVSTKASLP---ENKDOTYWRASNLVNSAHRDQ
Marmoset	86.0%	WTCQVRRPYQRIQLTWLEKQNVSTKASLTI---ENKDOTYWRASNLVNSAHRDQ
Rabbit	71.2%	WTCQVRRPYQRIQLTWLEKQNVSTKASLTI---ENKDOTYWRASNLVNSAHRDQ
Dog	71.8%	WTCQVRRPYQRIQLTWLEKQNVSTKASLTI---ENKDOTYWRASNLVNSAHRDQ
		****; ****; : *; : *; : *; : *; : *; : *; : *; : *; : *; : *
Human	100.0%	VKLTQVRRDQPAVSKSHDLVSAAPKQSGNTAAGTGSNERNY
Cyno	88.6%	VKLTQVRRDQPAVSKSHDLVSAAPKQSGNTAAGTGSNERNY
Marmoset	86.0%	VKLTQVRRDQPAVSKSHDLVSAAPKQSGNTAAGTGSNERNY
Rabbit	71.2%	VKLTQVRRDQPAVSKSHDLVSAAPKQSGNTAAGTGSNERNY
Dog	71.8%	VKLTQVRRDQPAVSKSHDLVSAAPKQSGNTAAGTGSNERNY
		* : ***; ****; : *; : *; : *; : *; : *; : *; : *; : *; : *

FIGURE 2A

Potential humanized sequence based on IGHV3-23*01 acceptor framework (AbM CDR definition)
IGHV3-23*01 EVQLLESGGGLVQPGGSLRLSCAASGFTFSSYAMSWVRQAPGKGLEWVSAISGSGGSYYADSVKRG
RFTISRDN SKNTLYLQMNSLRAEDTAVYYCAK
Joining region IMGT J00256|IGHJ4*01|YFDYWGGGTLVTVSS

seq	10	20	30	40	50	60
AbM	10	20	30	40	50	ab
	b b b	p	p b b b	b b i i	i i b b	b
SB-3F9	EVKLVE	SGGGLV	QPGGSL	KLSCAAS	GFTFSSYAMS	WVRQTPEKRL
	*	*	*	*	*	*
IGHV3-23*01	EVQLLE	SGGGLV	QPGGSL	RLSCAAS	GFTFSSYAMS	WVRQAPGKGLEWVS
hSB-3F9-H1	EVQLLE	SGGGLV	QPGGSL	RLSCAAS	GFTFSSYAMS	WVRQAPGKGLEWVS
hSB-3F9-H2	EVQLLE	SGGGLV	QPGGSL	RLSCAAS	GFTFSSYAMS	WVRQAPGKGLEWVA

seq	70	80	90	100	110	120
AbM	60	70	80	abc	90	100abcd
	i b	b b b x	b b b b	b i b i b b	i b b b	
SB-3F9	YPD	SVKGRFTISR	DNNAKY	TLYLQM	SSLRS	EDTALYYCAR
	*	*	*	*	*	*
IGHV3-23*01	YADSVKGR	FTISR	DN SKNTLYL	QMNSLRA	EDTAVYYCAK	
hSB-3F9-H1	YADSVKGR	FTISR	DN SKNTLYL	QMNSLRA	EDTAVYYCAK	PPYDDYYGGGFAY
hSB-3F9-H1	YADSVKGR	FTISR	DN SKNTLYL	QMNSLRA	EDTAVYYCAK	PPYDDYYGGGFAY

L

P

FIGURE 2B

Potential humanized sequence based on IGKV3-11*01 acceptor framework (AbM CDR definition)
IGKV3-11*01 EIVLTQSPATLSLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLLIYDASNRA
GIPARFSGSGGTFTLTISSEPEFAVYYCQQRSNWEP
Joining region IMGT J00242|IGKJ2*01|YTFGGTKLEIK

seq	10	20	30	40	50	60
AbM	10	20	30abcd	40	50	
	b b b	p p	b b b	b b i	i i i	i
SB-3F9	DIVLTQSPASLA	SLGQRATISC	RASKSVSSSGYSYMH	WYQQKPGQAPRLLIY	LASNLES	
	*	* * * *	*	*	*	*
3-11*01	EIVLTQSPATLSLSPGERATLSC	RASQSVS----	SYLA	WYQQKPGQAPRLLIY	DASNRA	
hSB-3F9-L1	EIVLTQSPATLSLSPGERATLSC	RASKSVSSSGYSYMH	WYQQKPGQAPRLLIY	LASNLES		
hSB-3F9-L2	EIVLTQSPATLSLSPGERATLSC	RASKSVSSSGYSYMH	WYQQKPGQAPRLLIY	LASNLES		
hSB-3F9-L3	EIVLTQSPATLSLSPGERATLSC	RASKSVSSSGYSYMH	WYQQKPGQAPRLLIY	LASNLES		

V P #

seq	70	80	90	100	110
AbM	60	70	80	90	100
	b b	b b b	ib bib	iib i	b b b
SB-3F9	GVPARFSGSGGTFTLTNIHPVEE	DAATYVC	QHNREL	PCT	FCGGTKLEIK
	*	* * * *	*	*	*
3-11*01	GIPARFSGSGGTFTLTISSEPEFAVYYC	QQRSNWEP			
hSB-3F9-L1	GIPARFSGSGGTFTLTISSEPEFAVYYC	QHNREL	PCT	FCGGTKLEIK	
hSB-3F9-L2	GVPARFSGSGGTFTLTISSEPEFAVYYC	QHNREL	PCT	FCGGTKLEIK	
hSB-3F9-L3	GVPARFSGSGGTFTLTISSEPEFAVYYC	QHNREL	PCT	FCGGTKLEIK	

A # ^

FIGURE 3

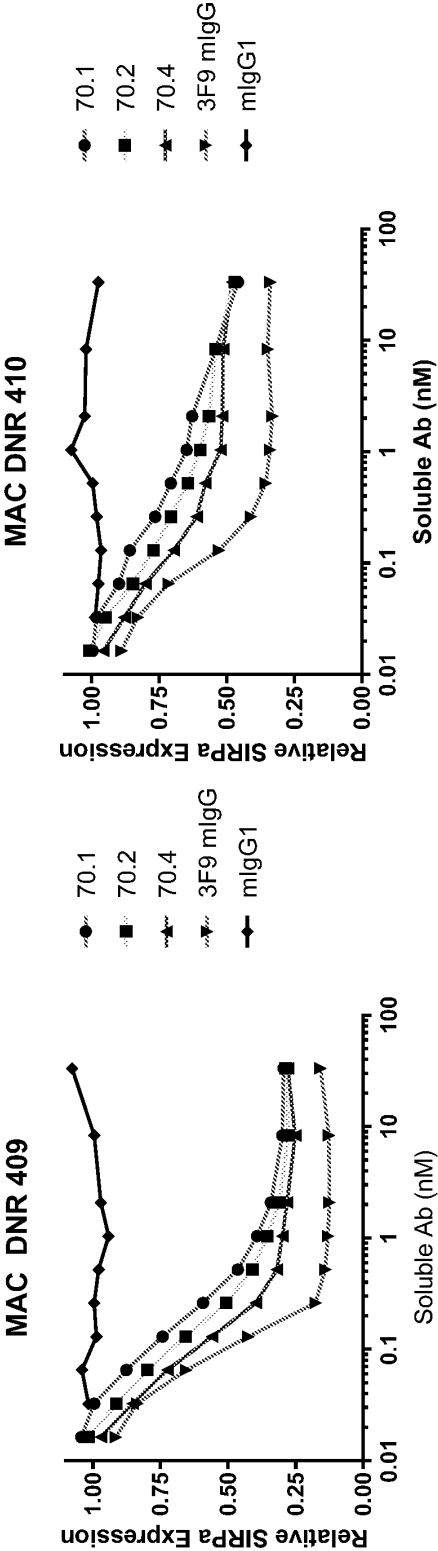


FIGURE 4A

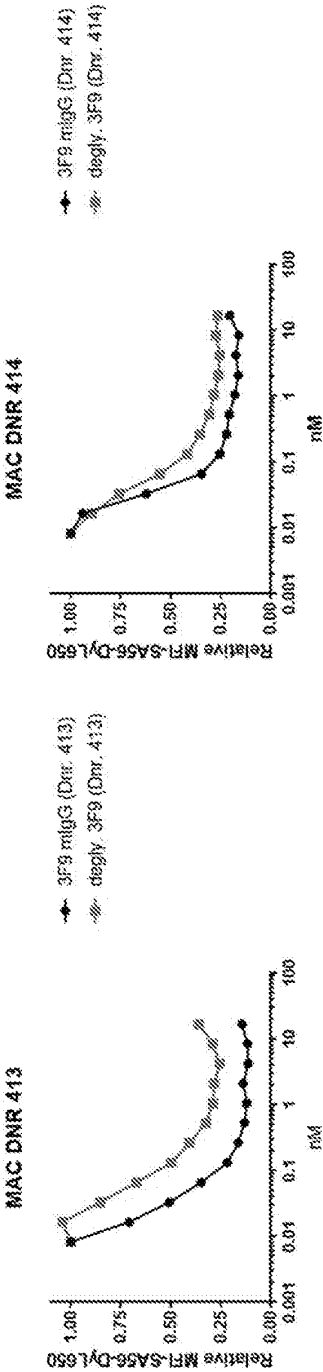
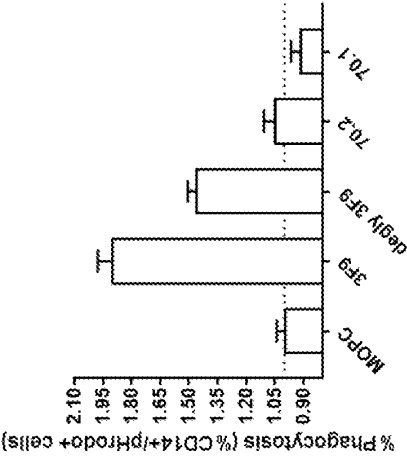


FIGURE 4B



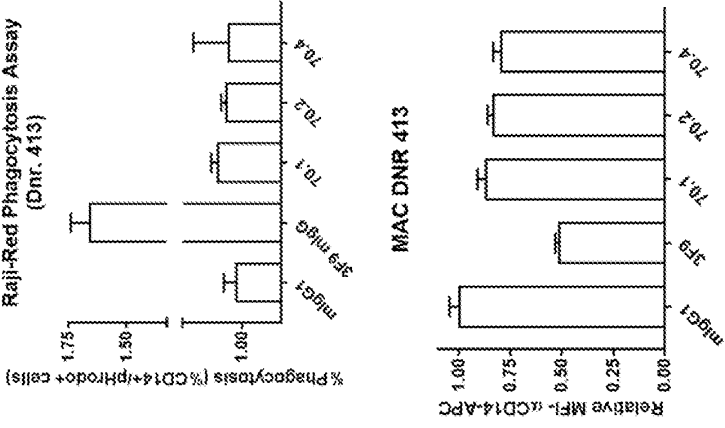
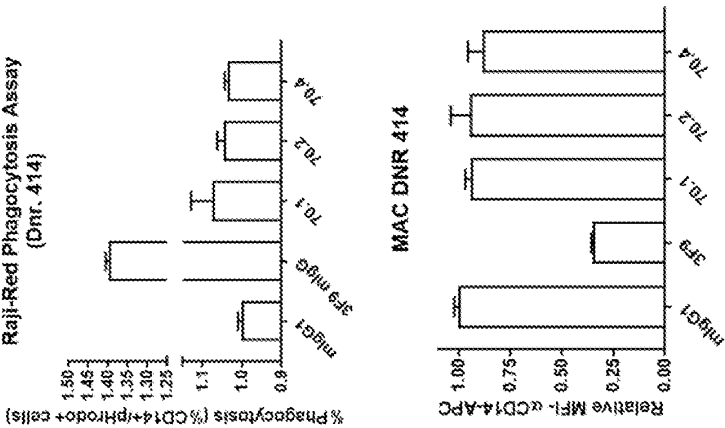


FIGURE 5A

FIGURE 5B

FIGURE 6A

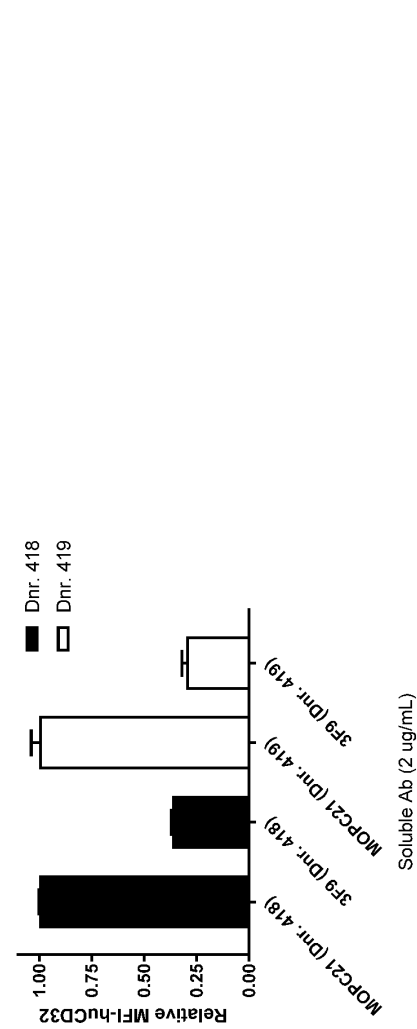
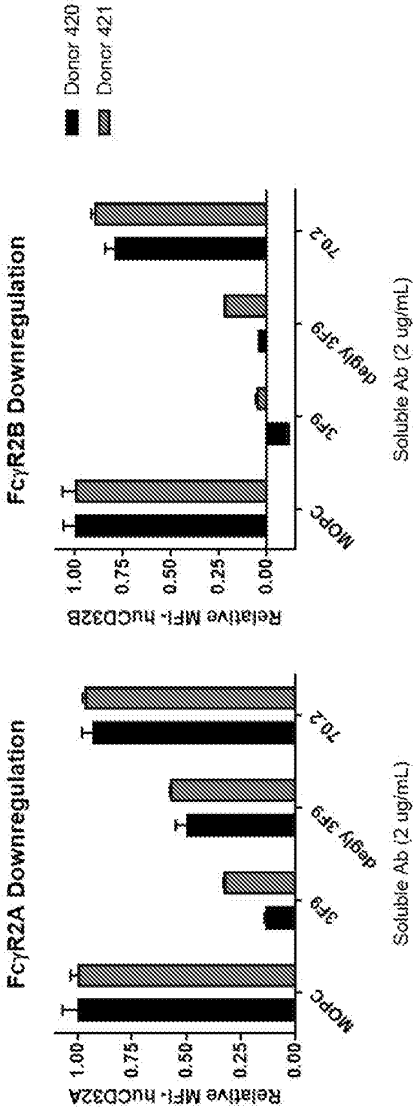


FIGURE 6B



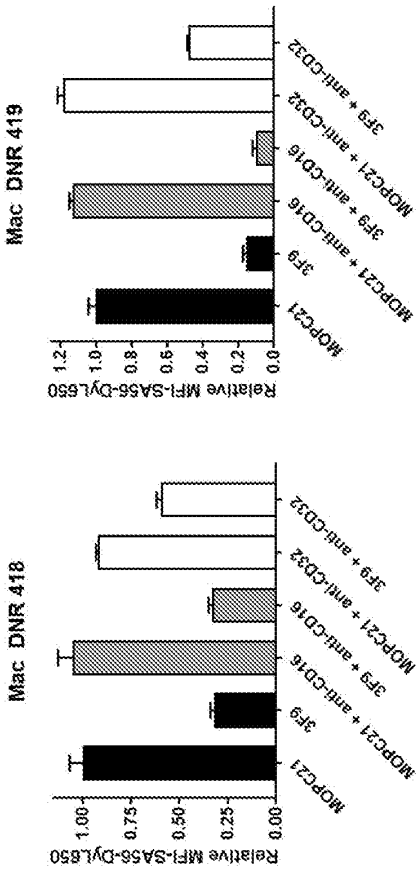


FIGURE 7A

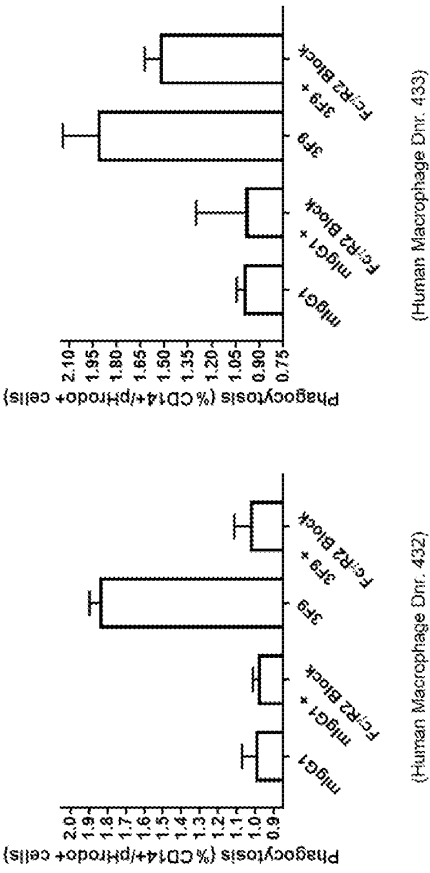


FIGURE 7B

FIGURE 8A

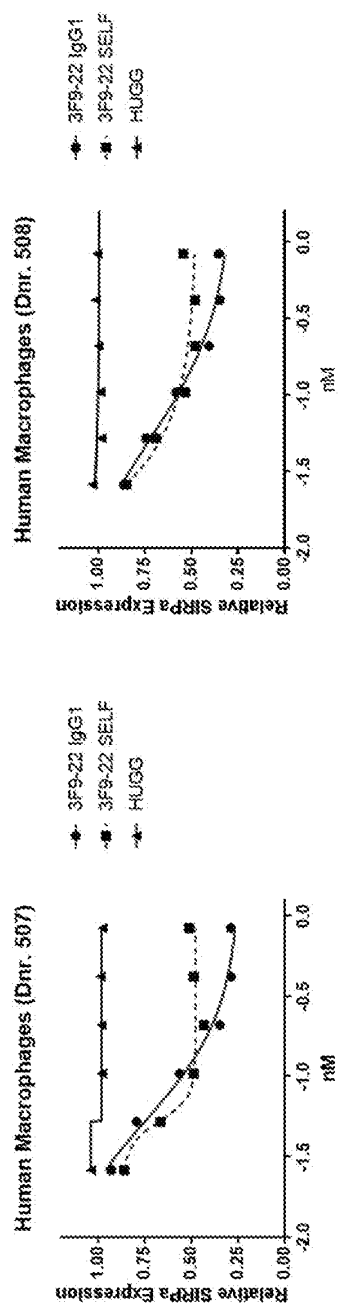


FIGURE 8B

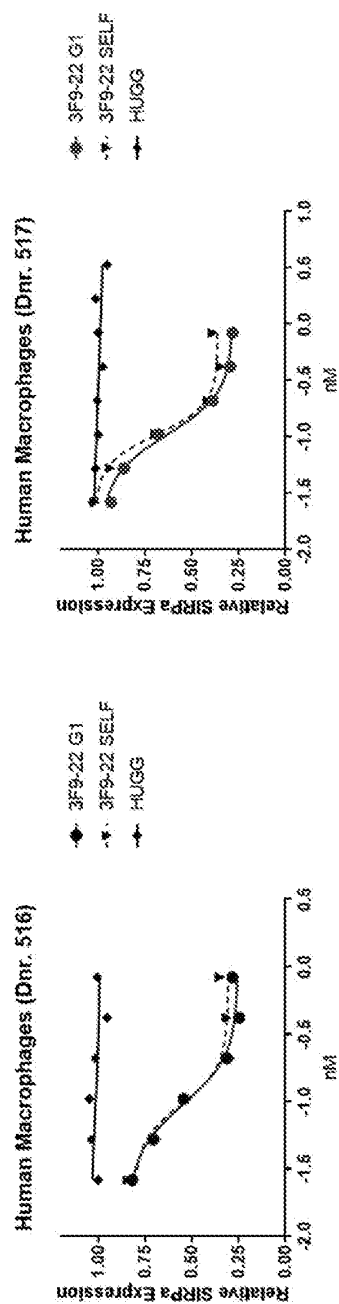


FIGURE 9A

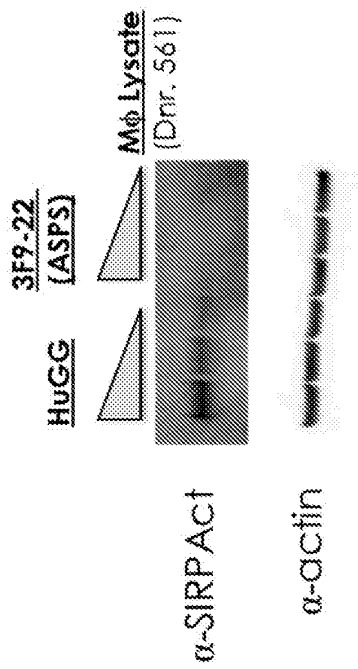


FIGURE 9B

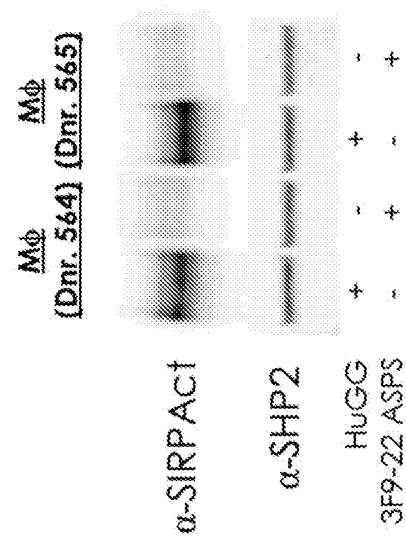


FIGURE 10A

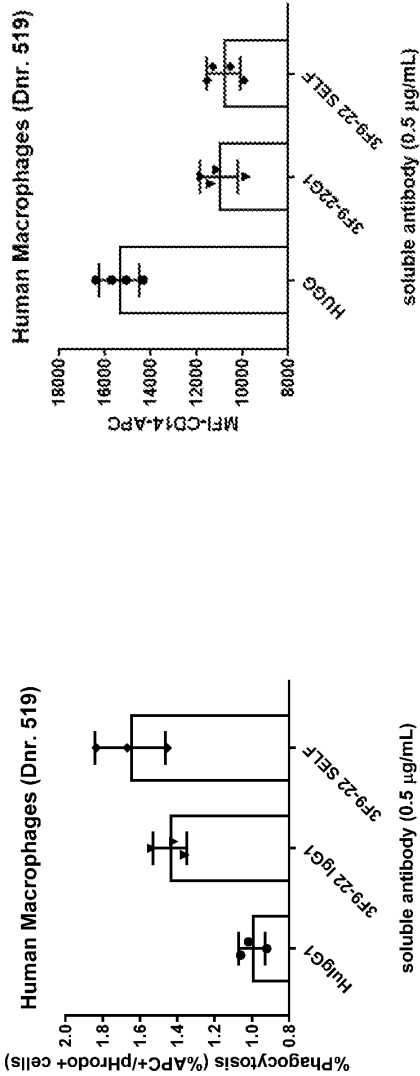


FIGURE 10B

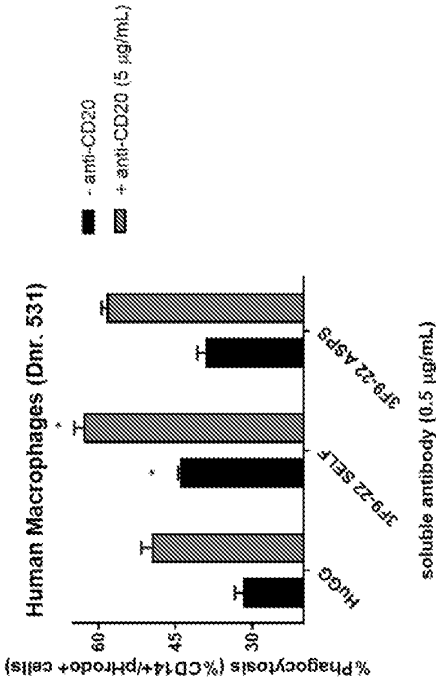


FIGURE 11B

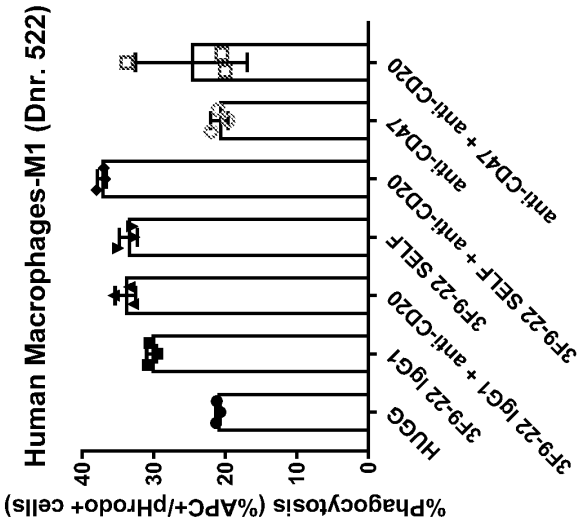


FIGURE 11A

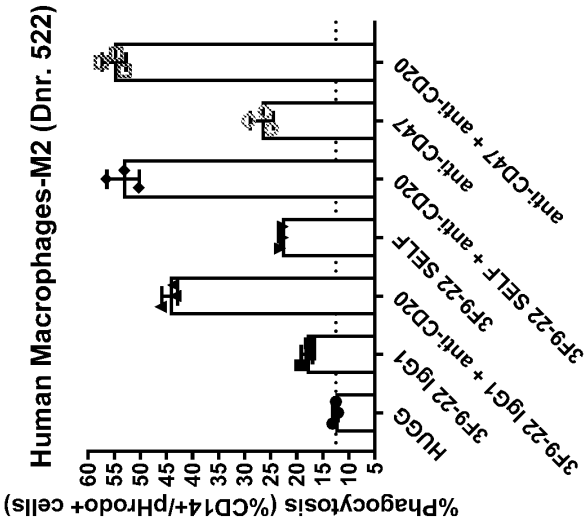


FIGURE 12B

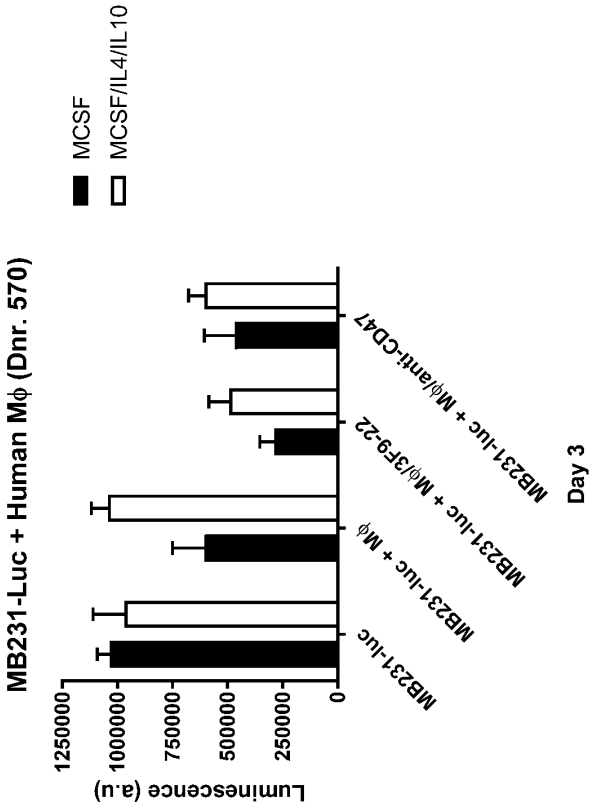


FIGURE 12A

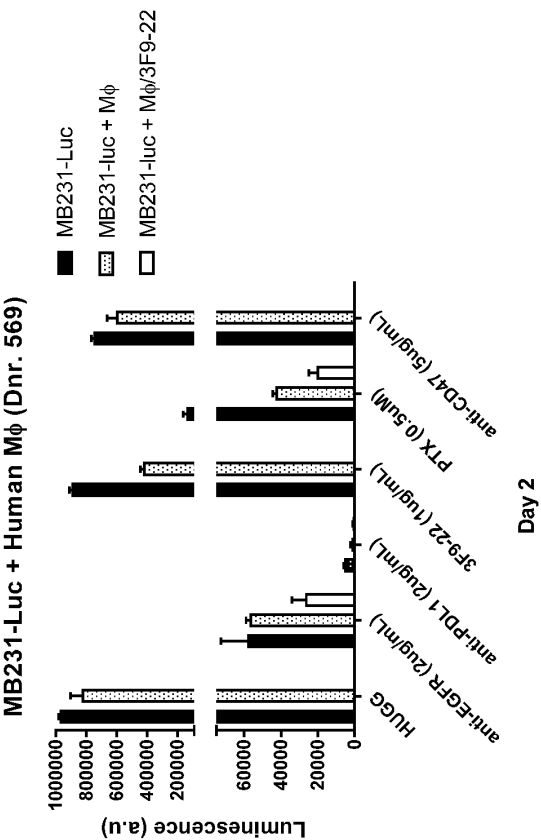


FIGURE 13B

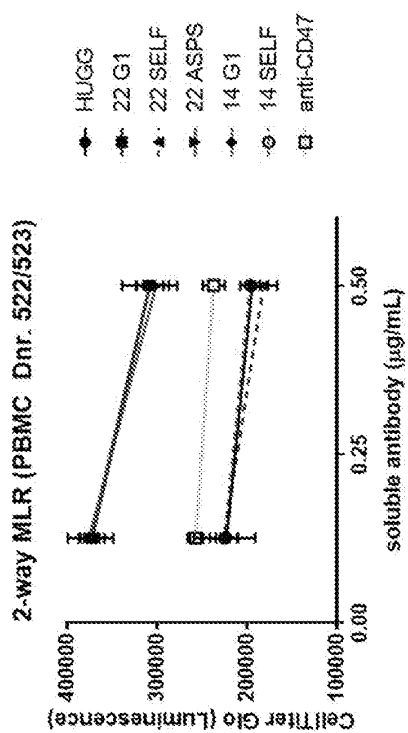


FIGURE 14A

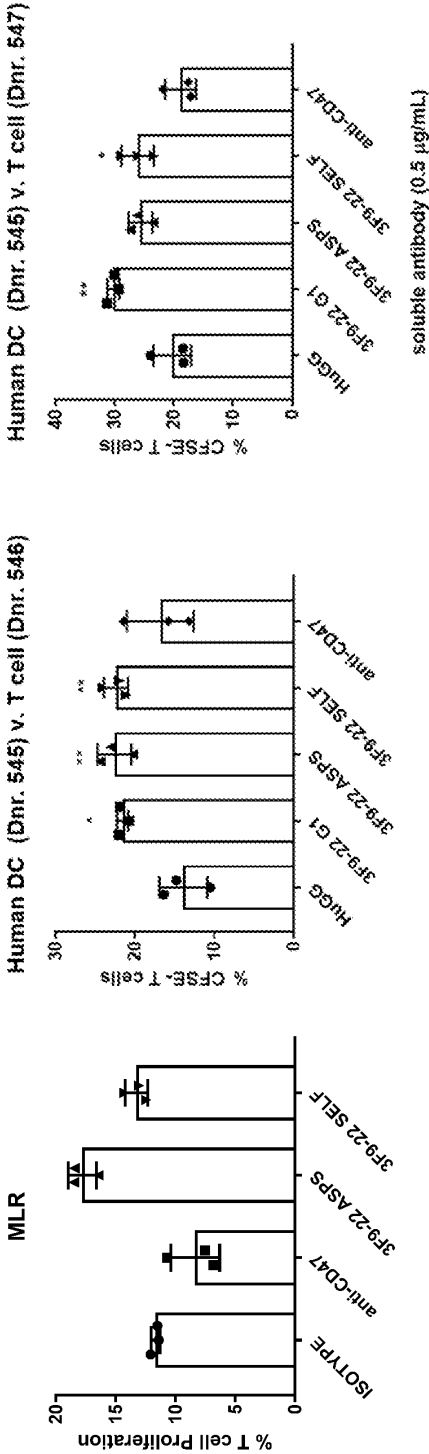


FIGURE 14B

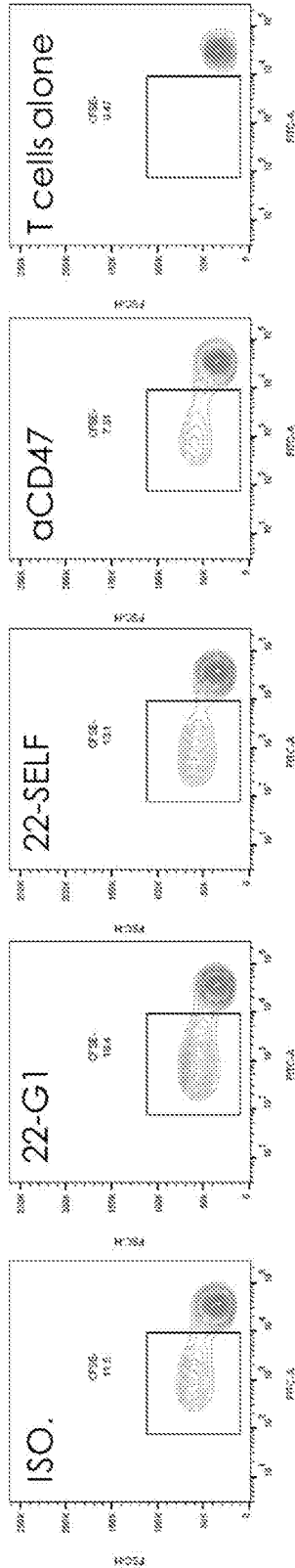


FIGURE 15B

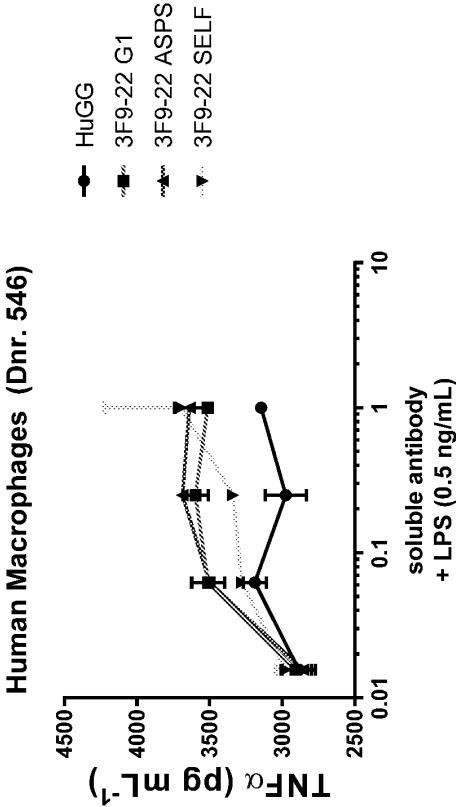


FIGURE 15A

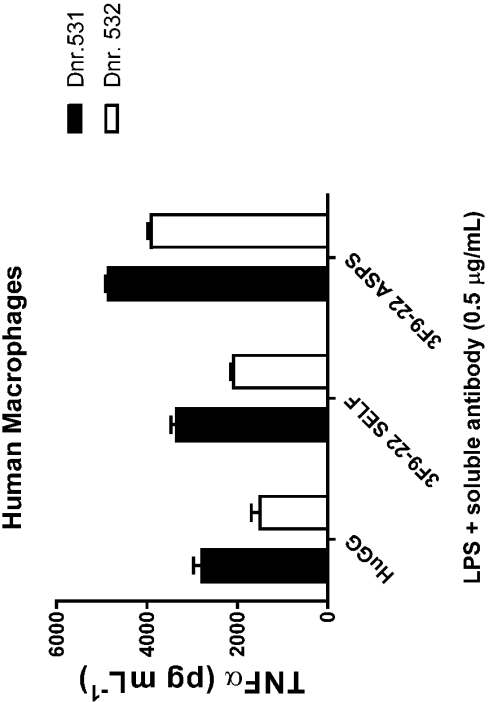


FIGURE 16

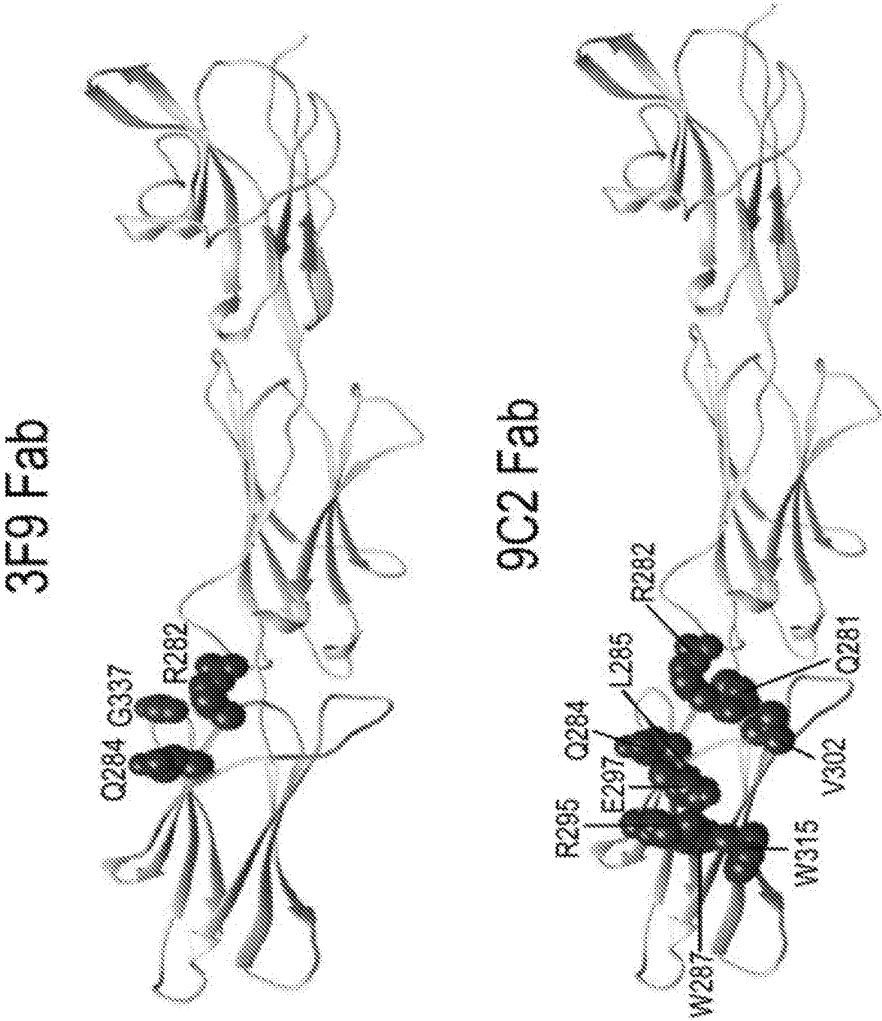


FIGURE 17A

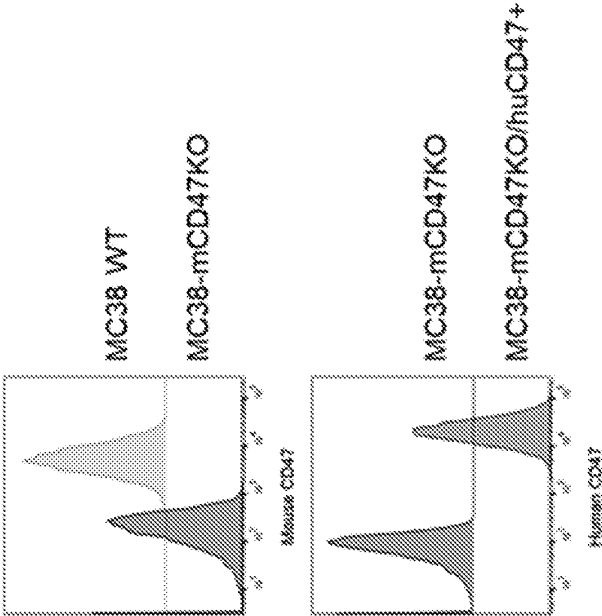


FIGURE 17B

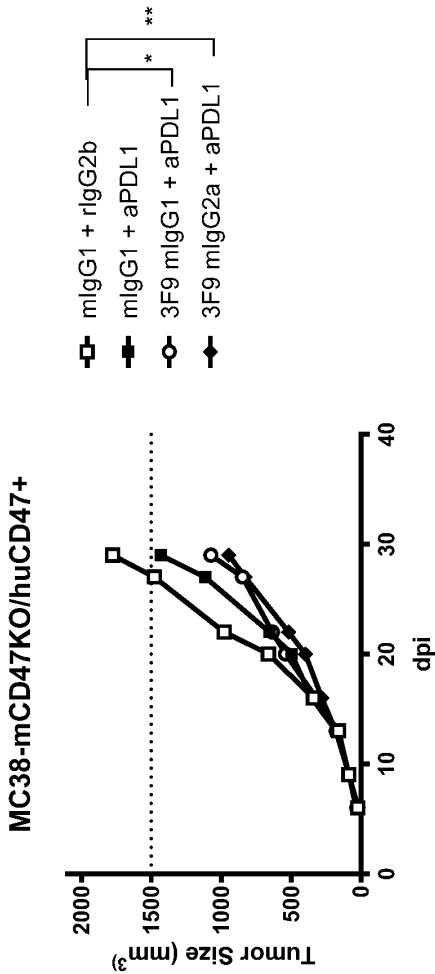
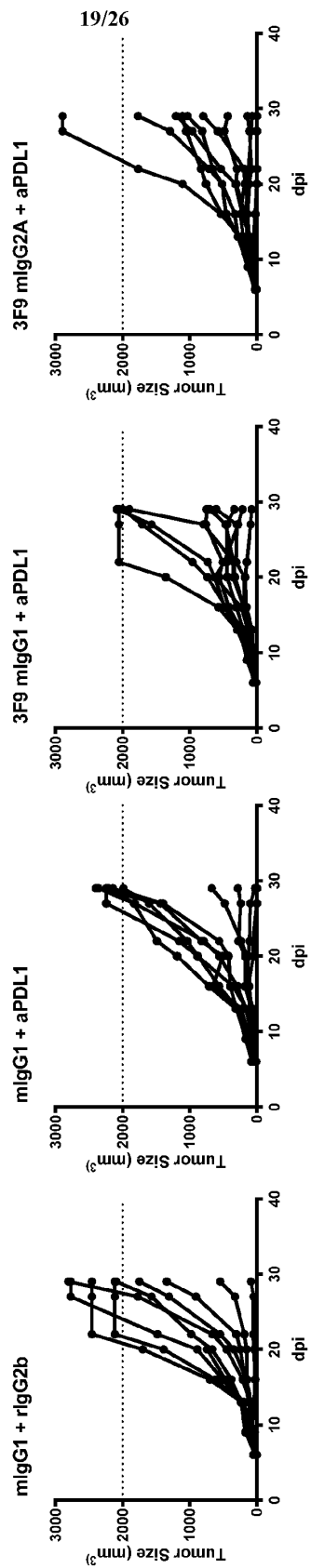


FIGURE 17C



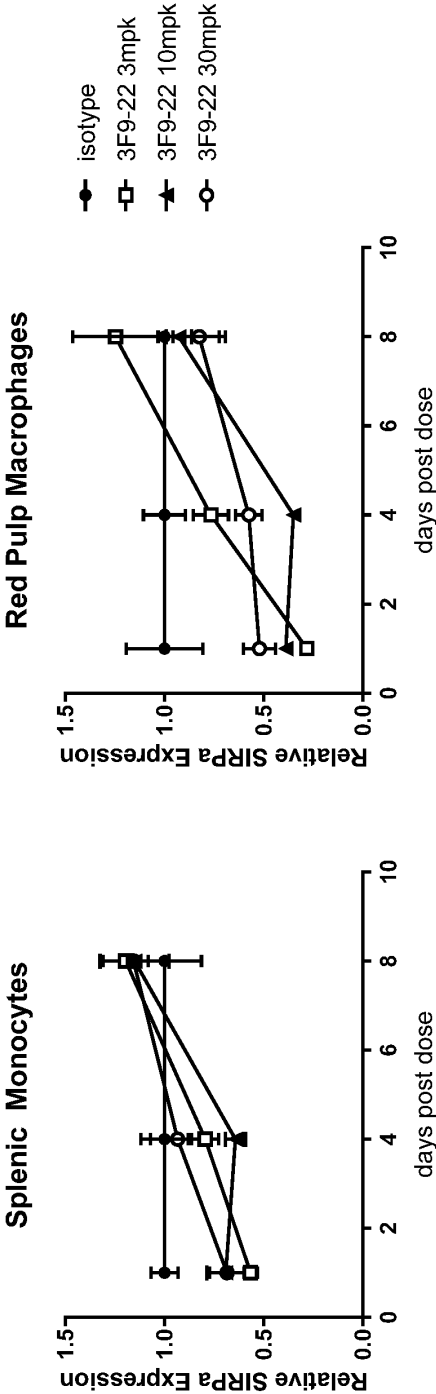
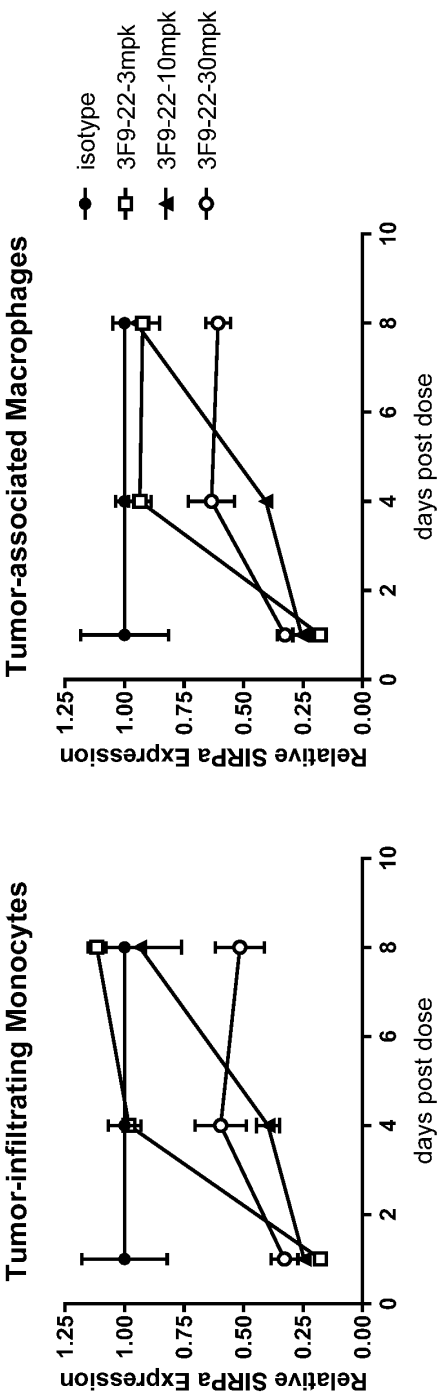


FIGURE 19A

Group	CD34+ HSC Donor A # mice	CD34+ HSC Donor B # mice	Antibody Treatment	Dose	Schedule	Inoculum
1	2	9	hulG1	10 mpk	q3dx2	3 million A375 cells
2	3	10	3F9-22 PS	10 mpk	q3dx2	3 million A375 cells
3	3	10	3F9-22 NSLF	10 mpk	q3dx2	3 million A375 cells

FIGURE 19B

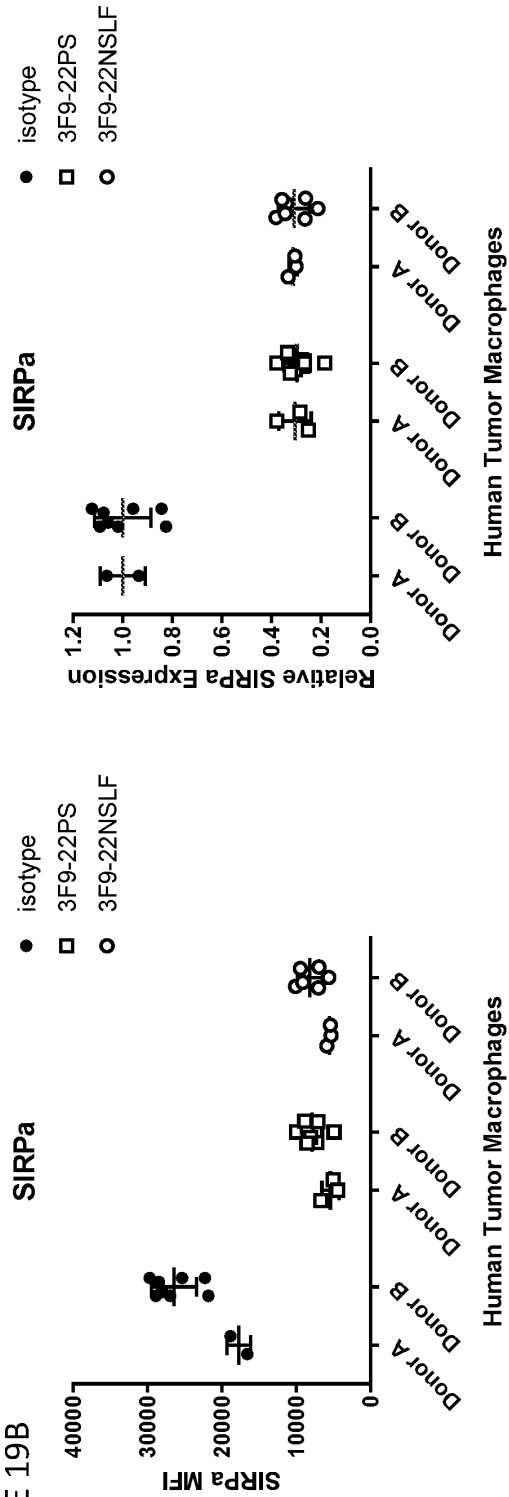


FIGURE 20A

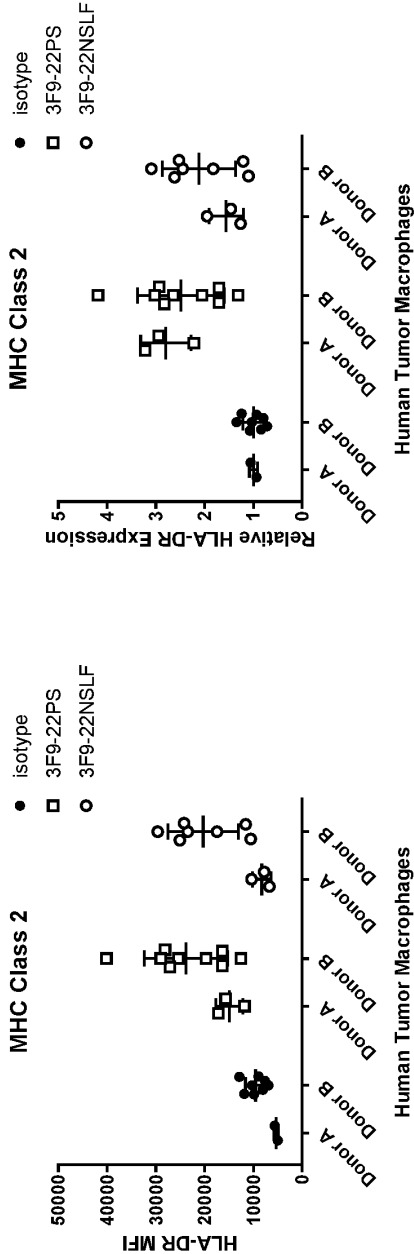


FIGURE 20B

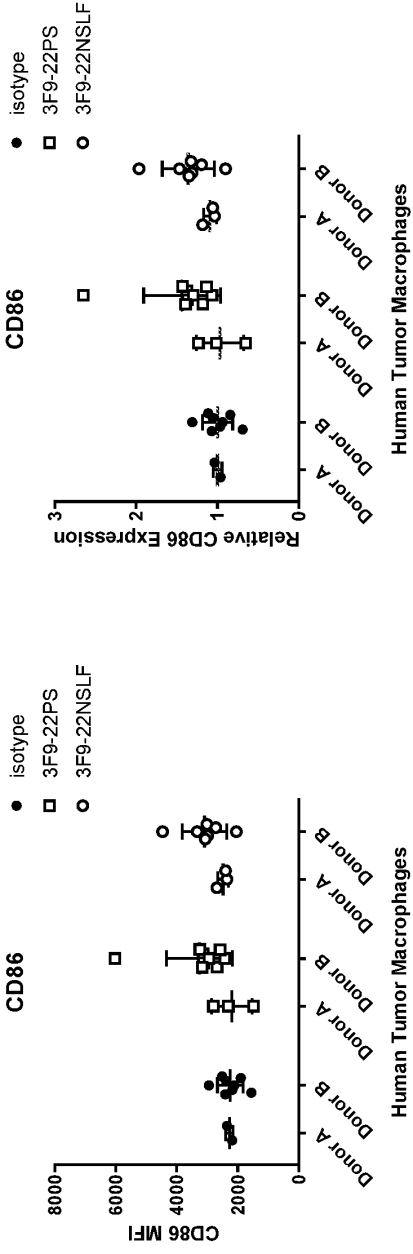


FIGURE 21A

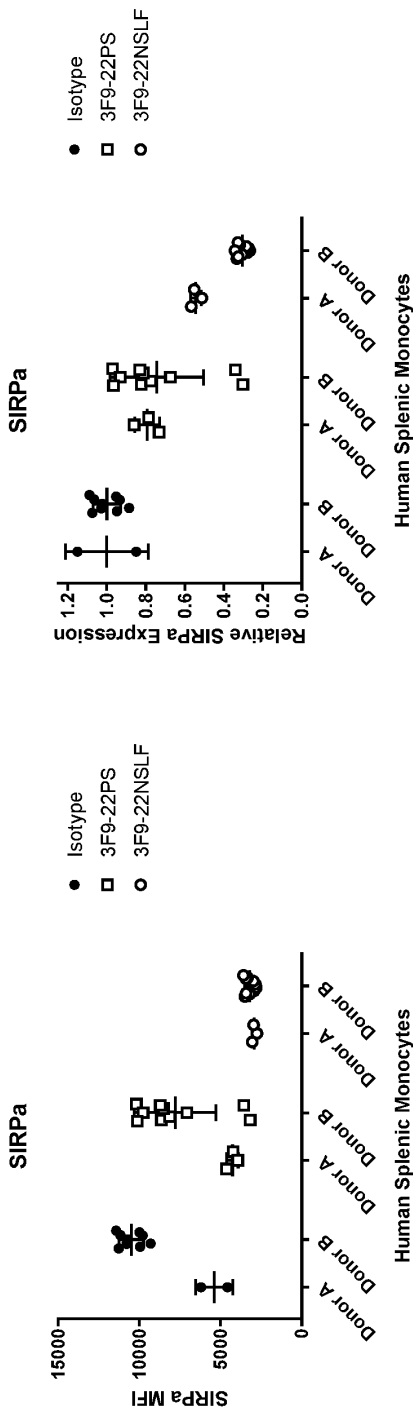


FIGURE 21B

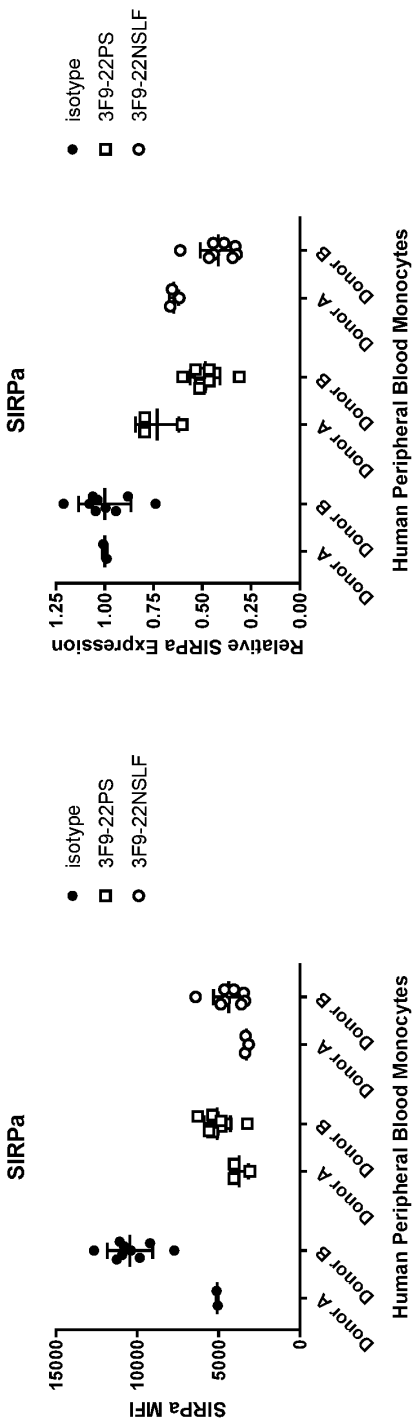


FIGURE 22

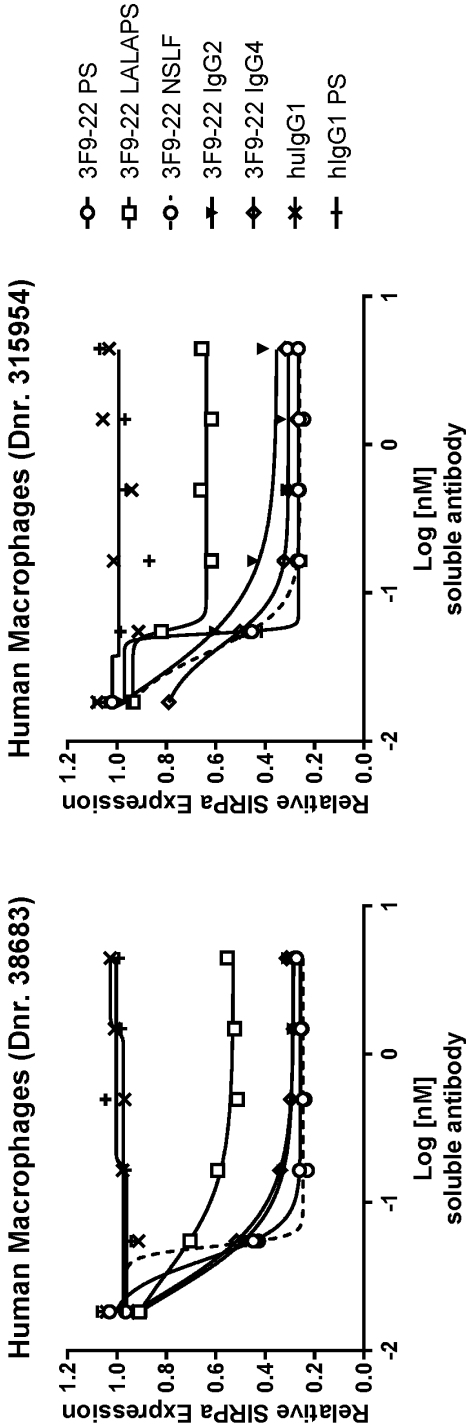


FIGURE 23

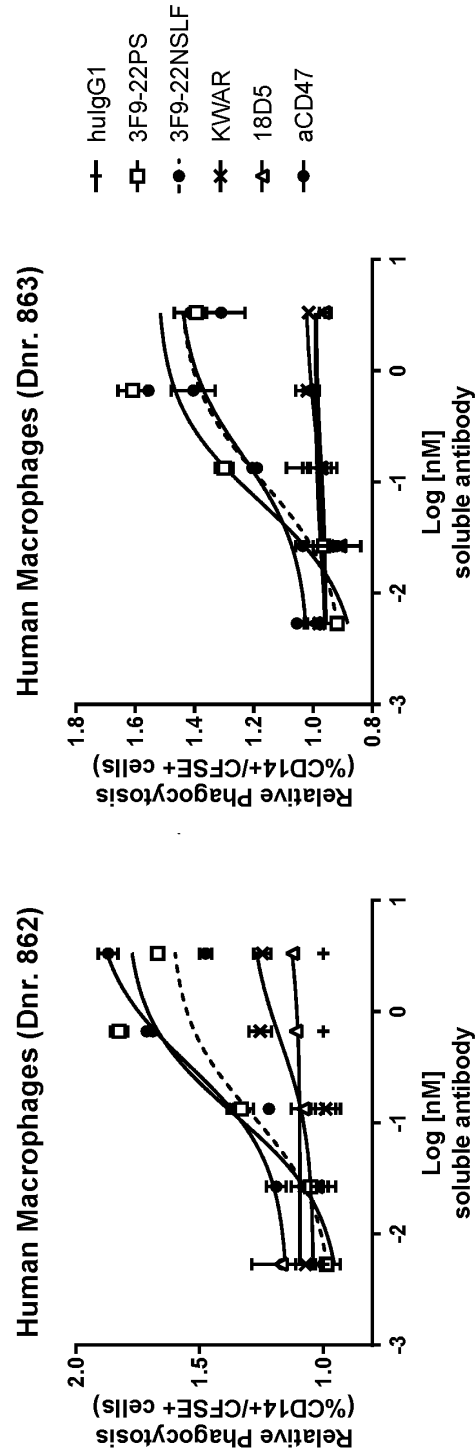


FIGURE 24

