

MFI2 mRNA Expression Determined by SOLiD
Whole Transcriptome Sequencing

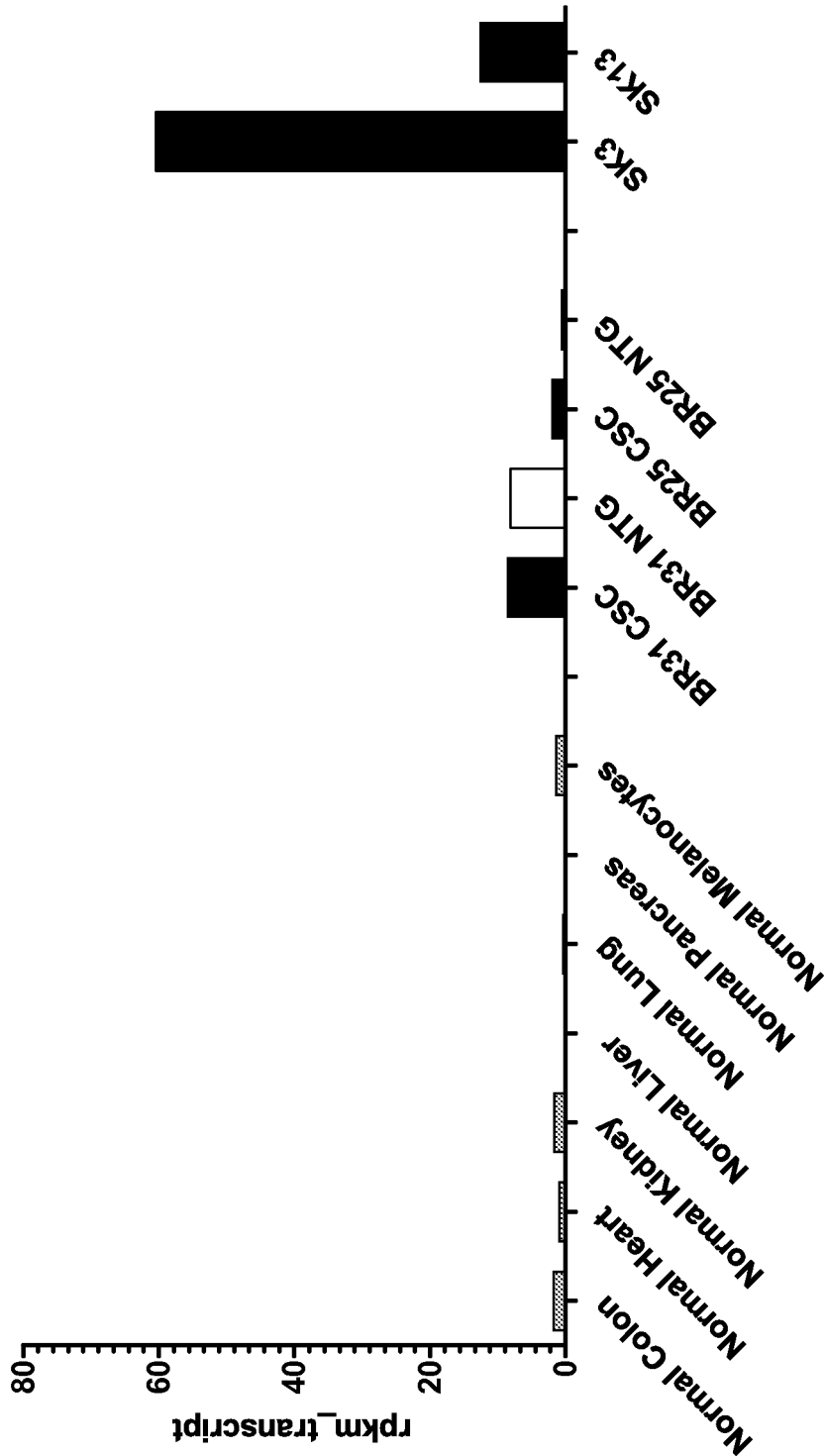


FIG. 1A

MFI2 mRNA Expression Determined by
Illumina Whole Transcriptome Sequencing

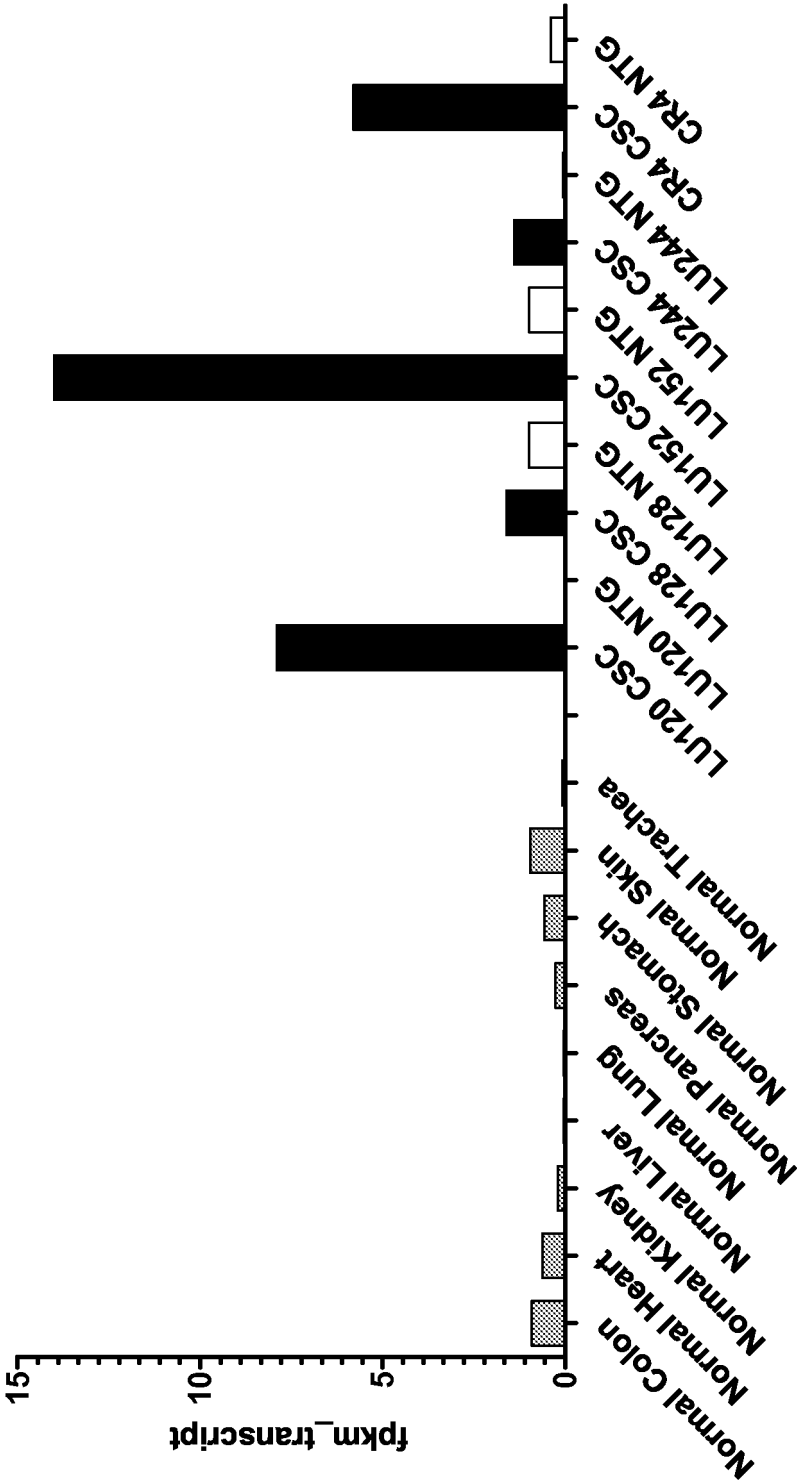


FIG. 1B

Schematic of hMFI2 isoforms

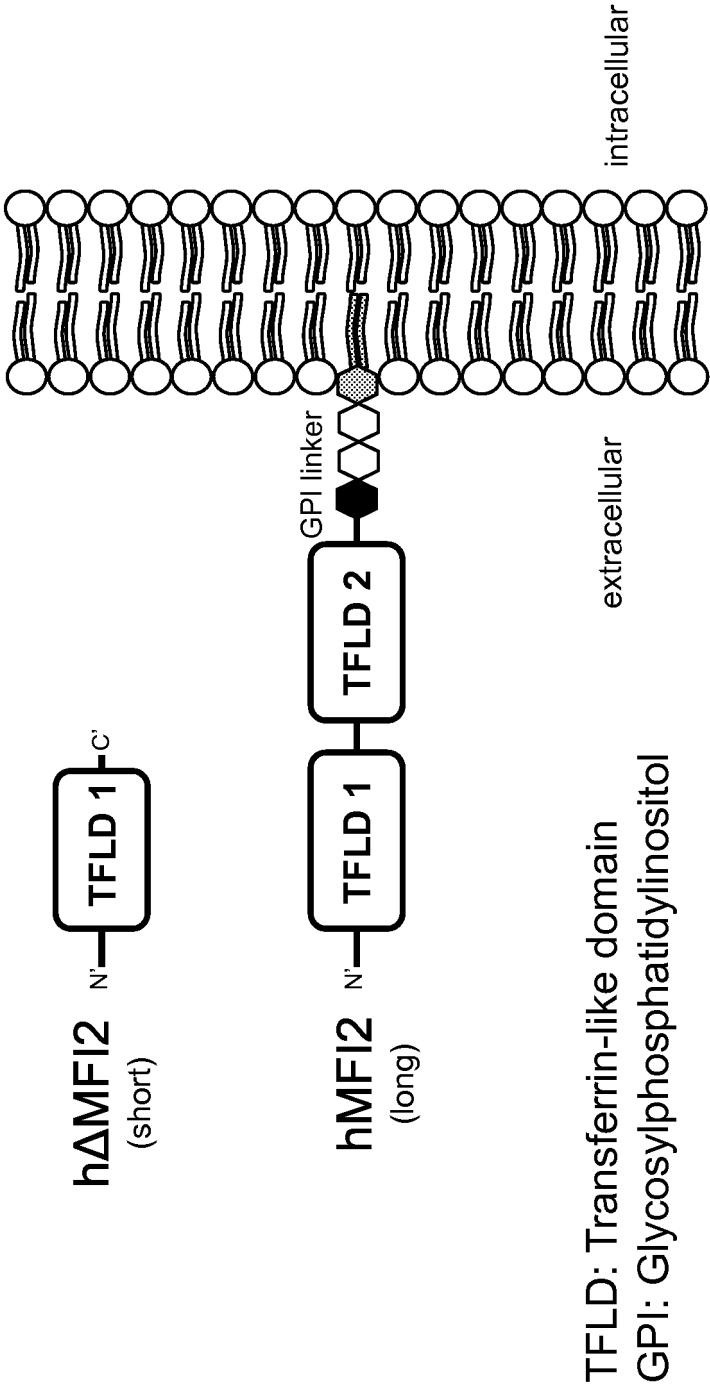


FIG. 2A

MFI2 mRNA Expression Determined by qRT-PCR

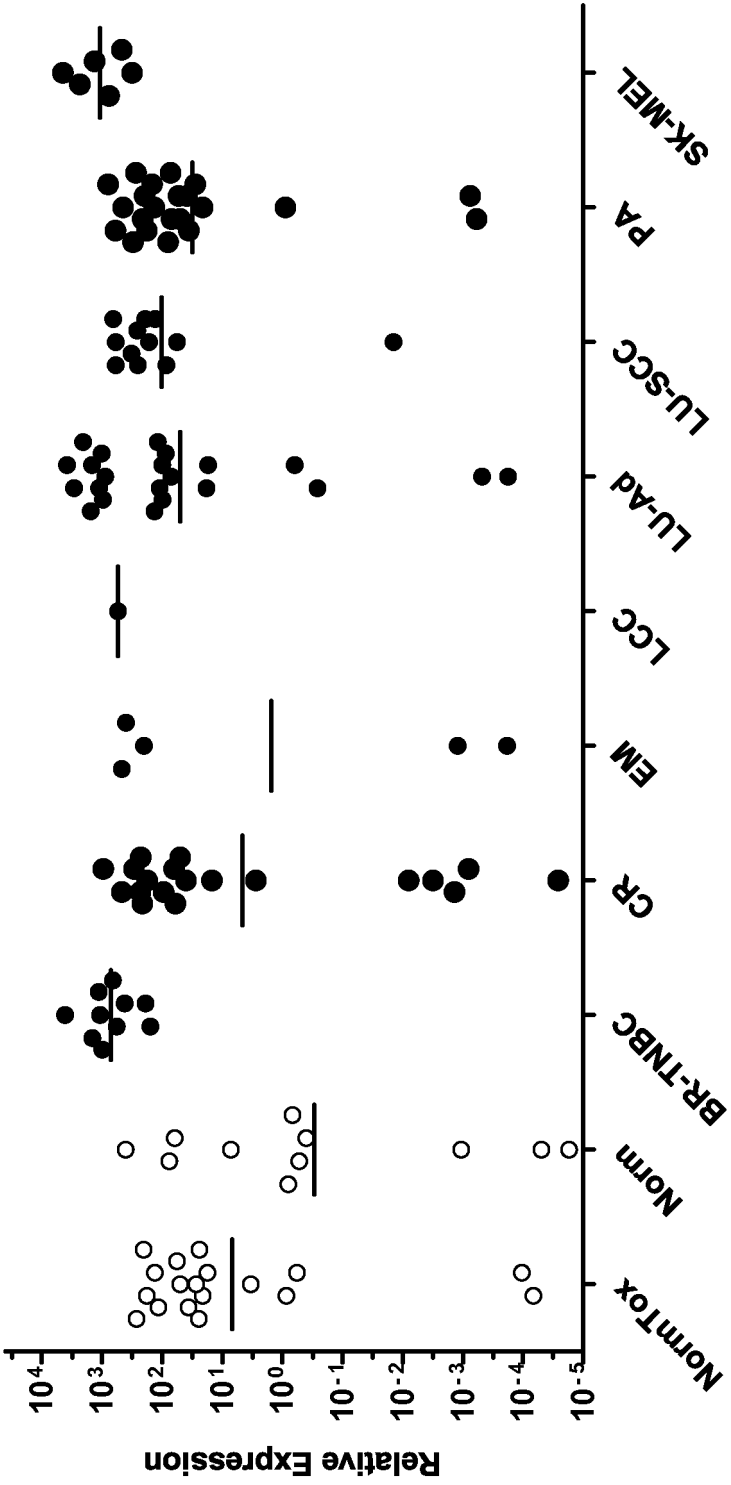


FIG. 2B

**MFI2 mRNA Expression Determined by
qRT-PCR in CSC and NTG PDX Tumor Cells**

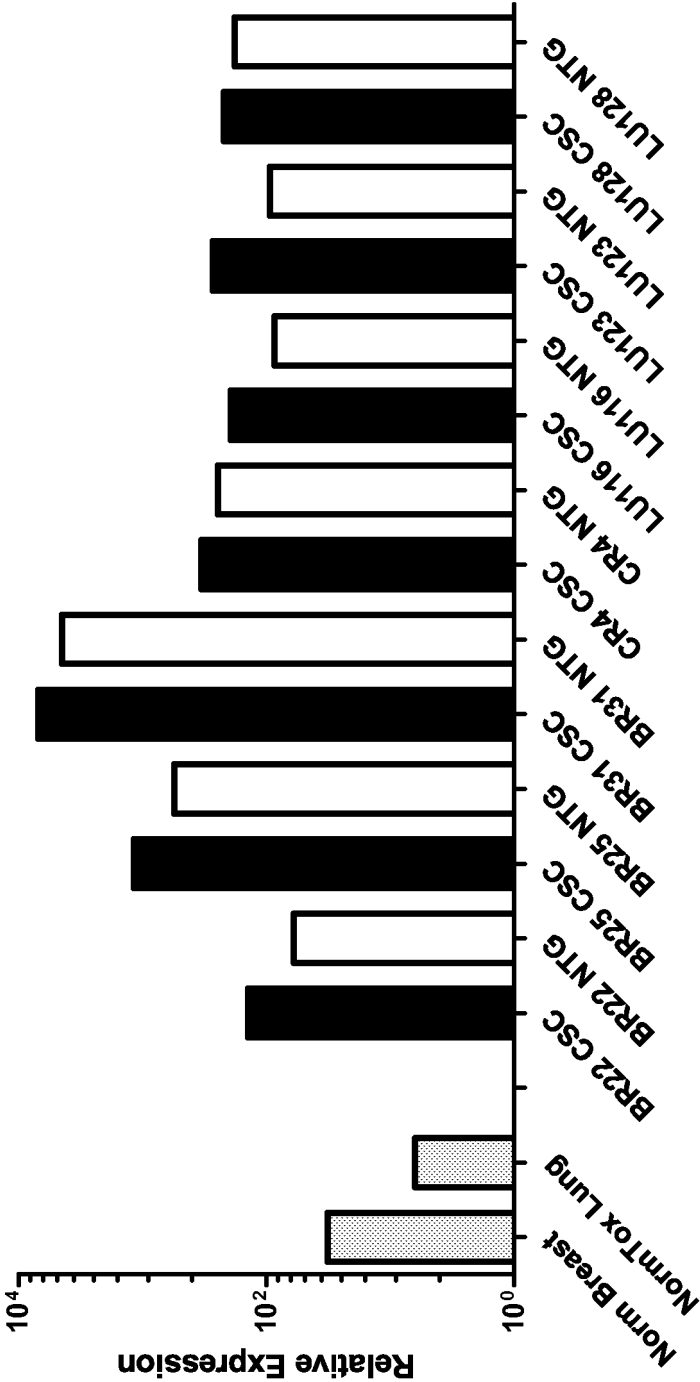


FIG. 2C

MFI2 mRNA Expression
Determined by Microarray

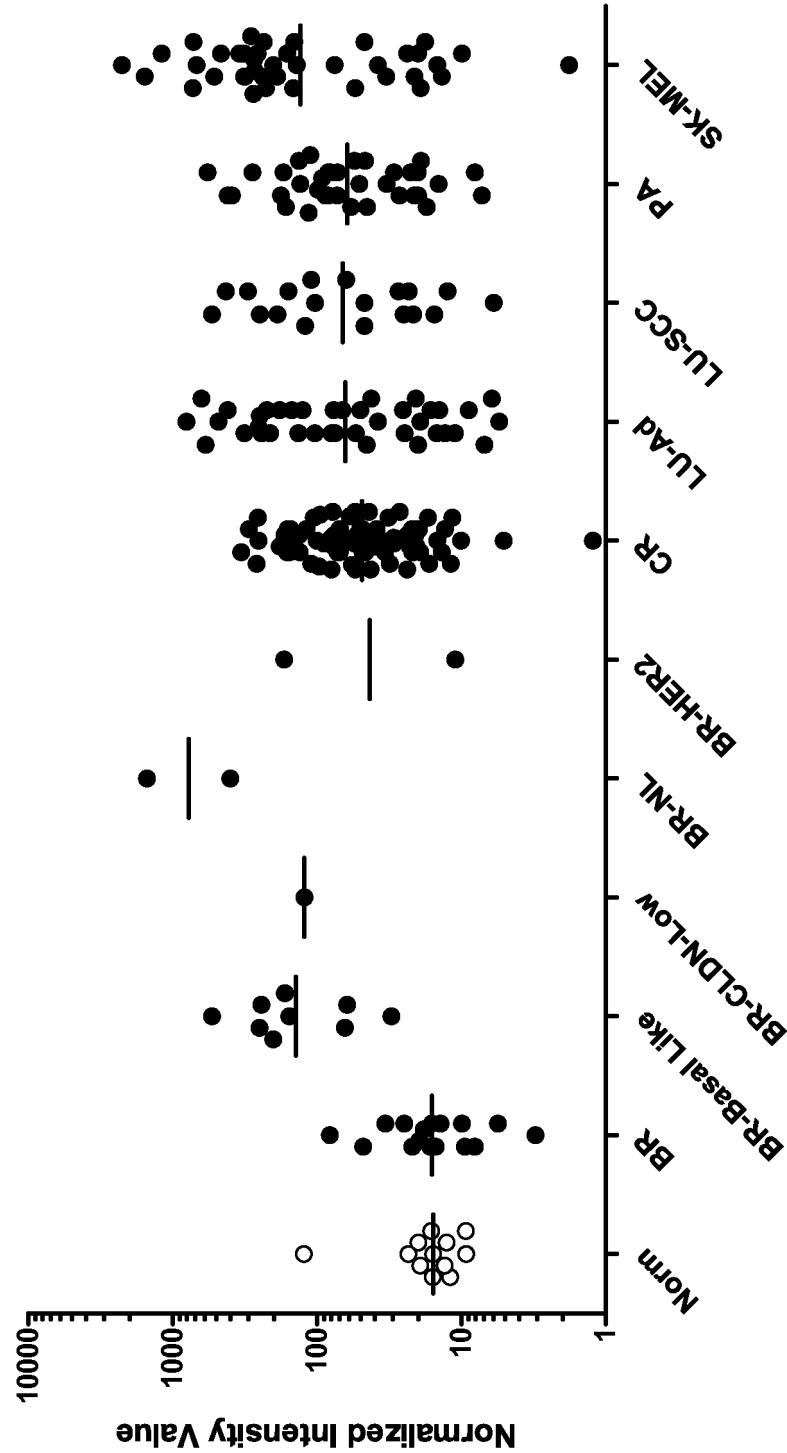


FIG. 3

Expression of MFI2 mRNA in a
Dataset from The Cancer Genome Atlas

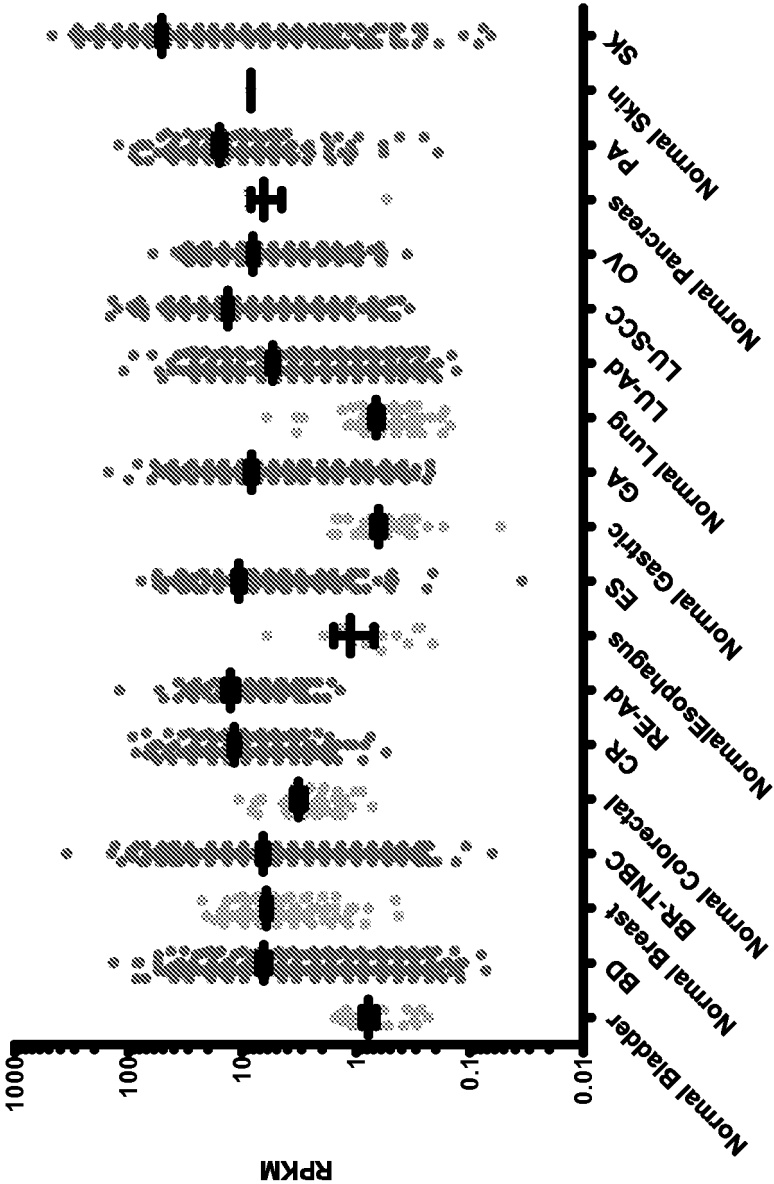


FIG. 4A

Survival difference between low and high MFI2 mRNA
expressing patients in Lung Adenocarcinoma Tumors
from The Cancer Genome Atlas

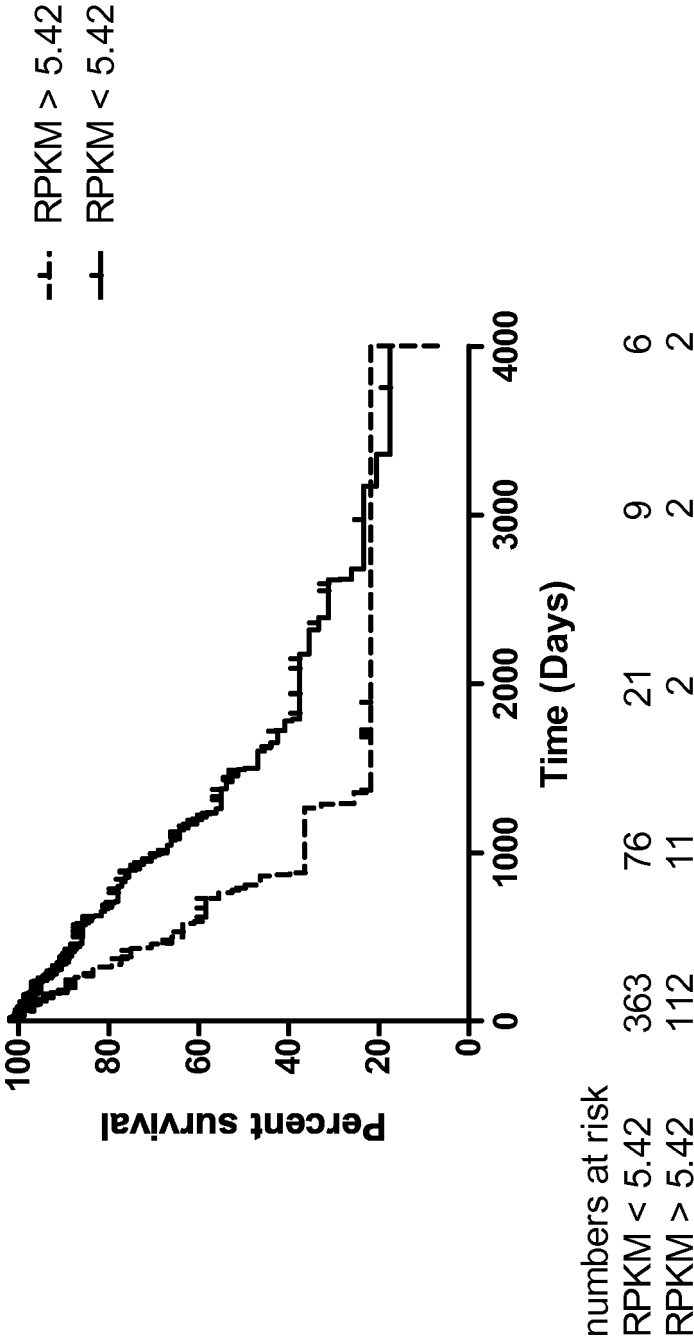


FIG. 4B

Anti-MFI2 Antibody Characteristics

Antibody	Isotype	Rat MFI2 Binding (Forte Bio)	Bin	Binding Affinity (nM)	TLD1 (1) or TLD2 (2) Binding
SC57.1	IgG1/K	-	X		1
SC57.2	IgG1/K	-	E		1
SC57.3	IgG1/K	-	X		ND
SC57.4	IgG1/K	+	D	12.8	2
SC57.5	IgG1/K	+	B	1.1	2
SC57.6	ND/K	-	X		2
SC57.7	IgG1/K	-	X		1
SC57.8	IgG2a/K	-	X		ND
SC57.9	IgG2a/K	-	F		2
SC57.10	IgG1/K	-	C	1.8	2
SC57.11	IgG1/K	-	C	3.2	2
SC57.12	IgG1/K	-	X		ND
SC57.13	ND/K	-	X		ND
SC57.14	IgG1/K	-	X		ND
SC57.15	IgG1/K	-	X		ND
SC57.16	IgG1/K	-	D		ND
SC57.17	IgG1/K	-	X		2
SC57.18	IgG1/K	+	D		2
SC57.19	IgG2b/K	-	X		ND
SC57.20	IgG2b/K	-	X		ND
SC57.21	ND	-	X		ND
SC57.22	ND	-	X		2
SC57.23	ND	-	X		ND
SC57.24	ND	-	X		2
SC57.25	IgG1/K	-	D		2
SC57.26	ND	-	X		ND
SC57.27	IgG1/K	-	E		1
SC57.28	IgG1/K	-	D		2
SC57.29	IgG1/K	-	C		2
SC57.30	IgG1/K	-	C	1.9	2

ND = Not Determined

FIG. 5

Anti-MFI2 Antibody Characteristics

Antibody	Isotype	Rat MFI2 Binding (Forte Bio)	Bin	Binding Affinity (nM)	Transferrin-Like Domain Binding
SC57.31	IgG1/K	-	A		2
SC57.32	IgG1/K	-	C		2
SC57.33	IgG1/K	+	B		2
SC57.34	IgG1/K	-	E		1
SC57.35	IgG1/K	-	C	2.3	2
SC57.36	IgG1/K	-	C		2
SC57.37	IgG1/K	+	D		2
SC57.38	IgG1/K	-	C		2
SC57.39	IgG1/K	+	B		2
SC57.40	IgG1/K	-	C		2
SC57.41	IgG1/K	-	C		2
SC57.42	IgG1/K	-	E		1
SC57.43	IgG1/K	-	A		2
SC57.44	IgG1/K	-	E		ND
SC57.45	IgG1/K	-	C		2
SC57.46	IgG1/K	+	D	4.5	2
SC57.47	IgG1/K	-	C		2
SC57.48	IgG1/K	-	ND		1
SC57.49	ND	-	ND		1
SC57.50	IgG2b/K	-	X		ND
SC57.51	IgG1/K	-	C		2
SC57.52	IgG1/K	-	X		2
SC57.53	IgG1/K	-	A		2
SC57.54	IgG1/K	-	C		2
SC57.55	IgG1/K	-	X		2
SC57.56	IgG1/K	-	C		2
SC57.57	IgG1/K	-	A		2
SC57.58	IgG1/K	+	B&C		2
SC57.59	IgG1/K	-	A		ND
SC57.60	IgG1/K	-	E		ND
hSC57.5	hIgG1/K	ND	B	4.4	2
hSC57.32	hIgG1/K	ND	C	5.4	2
hSC57.43	hIgG1/K	ND	A	44.9	2

FIG. 5 cont.

ND = Not Determined

Anti-MFI2 Murine Antibody Amino Acid Variable Region Light Chain Sequences

Name	FR1	CDRL1	FR2	CDRL2	FR3	CDRL3	FR4	SEQ ID NO
SC57.1	QIVLTQSPAIMASPGKVTMTCTC	SASSSVSYMH	WYQQKSGTSPKRWIY	DTSKLAS	GPVRFSGSGSGTSYSLTISSEIADDAATYYC	QQWSRTPPT	FGGGTKLEIK	21
SC57.3	DIVLTQSPATLSVTPGDSVSLSC	RASQGISNNLH	WYQQKSHESPRLLIK	YASQIS	GIPSRFSGSGSGTDFALSINSVETEDFGMFFC	QQNSMPLT	FGAGTKLELK	25
SC57.4	DVVMQTQPLSLPVSLGDQASISC	RSSQSLVHSNGNTYLVH	WYLQKPGQSPKLLIY	RVSNRFS	GPDRFSGSGSGTDFTLKISRVEAEDLGVLVC	SQSTHVPLT	FGAGTKLELK	29
SC57.5	DIVMTQSHKFMSTSVGDRVSIITC	KASQDVYAAVA	WYHQPQSPKLLIY	WASTRHA	GPDRFTGSGSGTDYTLTISSVQAEDLALYYC	QQHYRTPWT	FGGGTKLEIK	33
SC57.6	DIVMSQSPSSLAVSAGEKVTMSC	KSSQSLHSHIRKKNVLA	WYQQKPGQSPKLLIY	WASTRES	GPDRFTGSGSGTDFTLTISSVQAEDLAVYYC	KQSYNLFT	FGGGTKLEIK	37
SC57.8	DIVMTQSHKFMSTSVGDRVNITC	KASQDVGTVA	WYQQKPGQSPKLLIY	WASTRHT	GPDRFTGSGSGTDFTLTISNVQSEDLADYFC	QQYSSYPLT	FGAGTKLELK	41
SC57.9	QIVLTQSPAIMASPGKVTITC	SASSSVSYMH	WFQKPGTSPKRWIY	TTSNLAS	GPARFSGSGSGTSYSLTISRMEADAATYYC	QQRSSFPT	FGSGTKLEIK	45
SC57.10 (SC57.32)	DIQMTQTTSLSASLGDRVTISC	RASQDISNYLN	WYQQKPDGTVKLLIF	YTSRLHS	GPVSRFSGSGSGTDYSLTISNLEQEDFATYFC	QQGNTLPPT	FGGGTKLEIK	49
SC57.11	DIQMTQTTSLSASLGDRVTISC	RASQDISSVYN	WYQQKPDGTVKLLIY	YTSRLHS	GPVSRFSGSGSGTDYSLTINNLEQEDATYFC	QQGNTLPPT	FGGGTKLEIK	53
SC57.12	DIQMTQSPPSLSASVGETVTITC	RTSENIYSYLT	WYQQKQKSPQLLY	NAKTLAE	GPVSRFSGSGSGTQFSLKINSIQPEDFGSYVC	QHHYGTPLT	FGAGTKLELK	57
SC57.14	DIVMSQSPSSLAVSAGEKVTMSC	KSSQSLNSRTRKNVLA	WYQQKPGQSPKLLIY	WASTRES	GPDRFTGSGSGTDFTLTISSVQAEDLAVYYC	KQSYNLWT	FGGGTKLEIK	61
SC57.15	DIQMTQSPASLSASVGETVTITC	GASENIYGALN	WYQRKQKSPQLLY	GATNLAD	GMSSRFSGSGSGGQYSLKISGLHPADVATYYC	QNVNLTPT	FGGGTKLEIK	65

FIG. 6A

Anti-MFI2 Murine Antibody Amino Acid Variable Region Light Chain Sequences

Name	FR1	CDRL1	FR2	CDRL2	FR3	CDRL3	FR4	SEQ ID NO
SC57.17	DIQMTQTTSLSASLGDRVITSC	SASQDINNVLN	WYQQKPDGTVKLLIH	YTSSLHS	GVPSRFSGSGSGTDVSLTISNLEPEDIATYYC	QQYSKVPWT	FGGGTKLEIK	69
SC57.20	DIVMTQSHKFMSTSVGDRVITC	KASQDVGSVA	WSQQKPGQSPKLLIY	WASSRHT	GVDPDRFTGSGSGTDFTLTISNMQSEDLADYFC	QQYSNYPLT	FGAGTKLELK	73
SC57.27	DIQMTQSPVLSASVGETVTITC	RASEIISYLA	WYQQKQKSPQLLLVY	NAKTLAE	GVPSRFSGSGSGGTQFSLKINSIQPEDFGTYYC	QHHYGVPT	FGAGTKLELK	77
SC57.31	DIVLTQSPATLSVTPGDSVSLC	RASQSVGNSLH	WYQQKSHESPRLLIK	YASQSI	GIPSRFSGSGSGTDFTLSINSVETEDFGMYFC	QQSDSMPLT	FGTGTKLELK	81
SC57.43	DVWMTQTPLSLPVSLGDAQSISC	RSSQSLVHSNGNTYLA	WYLAQKPGQSPKLLIY	KVSNRFS	GVDPDRFSGSGSGTDFTLKISRVEAEDLGVYFC	SQSTHVPLYT	FGGGTKLEIK	85
SC57.60	DIQMTQSPASLSASVGETVTITC	RASENIISYLA	WSQQKQKSPHLLVY	NAKTLAE	GVPSRFSGSGSGGTQFSLKINSIQPEDFGSYYC	QHHYGIPLT	FGAGTKLELK	89

FIG. 6A Cont.

Anti-MFI2 Humanized Antibody Amino Acid Variable Region Light Chain Sequences

Name	FR1	CDRL1	FR2	CDRL2	FR3	CDRL3	FR4	SEQ ID NO
hSC57.5	DIQMTQSPSSLSASVGDRVITTC	KASQDVYAAVA	WYQQKPGKAPKLLIY	WASTRHA	GVPSRFGSGSGTDFTLTISSLQPEDFATYYC	QQHYRTPMT	FQGGTKVEIK	93
hSC57.32	DIQMTQSPSSLSASVGDRVITTC	RASQDISNYLN	WYQQKPGKAPKLLIY	YTSRLHS	GVPSRFGSGSGTDYTLTISSLQPEDFATYYC	QQGNTLPPT	FGGGTKVEIK	99
hSC57.43	DIVMTQSPDSLAVSLGERATINC	RSSQSLVHSNGNTYLVH	WYQQKPGQPPKLLIY	KVSNRFS	GVPRFSGSGSGTDFTLTISSLQAEDVAVYYC	SQSTHVPLYT	FGGGTKVEIK	105

FIG. 6A Cont.

Anti-MFI2 Murine Antibody Amino Acid Variable Region Heavy Chain Sequences

WO 2016/037119

PCT/US2015/048659

Name	FR1	CDRH1	FR2	CDRH2	FR3	CDRH3	FR4	SEQ ID NO
SC57.1	QVQLKQSGPGLVQP ⁵ QSLSITCTVSGFSLT	DYGVH	WVRQSPGKGLDWLG	VIVSGGNTDYNAAFIS	RLSISKDMSKSQIFFEMNSLQD ¹ TD ² TAIYYCAR	QLHYYPGFAY	WGQGTLLTVSA	23
SC57.3	QVQLKQSGPGLVQP ⁵ QSLSITCTVSGFSLS	SYGVH	WVRQSPGKGLEWLG	VIVSGGNTDYNAAFIS	RLSISKDMSKSQVFFK ¹ MNSLQADD ² TAIYYCAR	RNNSAWFAY	WGQGTLLTVSA	27
SC57.4	ETQLQSGPEMWKPGASVKVTCKASGYSFT	DFNWH	WMKQSHGKSLIEWIG	YIDPYKGGISYNQKFKG	RATLTVDKSSSTAFMHLNSLTSD ¹ SAVVYCAR	DYVGSRFPPYFDY	WGQGTLLTVSS	31
SC57.5	EVQLQSGPELVKPGASVKISCKASGYSFT	DYYLH	WVKQSHVKSLEWIG	RINPYNGATSYNQIFKD	KASLTVDKSSSTAYMDLHSLTSED ¹ SAVVYCAR	GGDYDFPMY	WGQGTLLTVSP	35
SC57.6	GVQWESGGGVQPGGSLKLSCAASGFTFS	SYAMS	WVRQTPEKRLEWVA	YLSRGGGTYVLDTVKG	RFTISRDNAKNTLYLQ ¹ MNSLKSEDTAMYYCAR	LDGYNWYFDV	WGAGTPVTVSS	39
SC57.8	QVQLKQSGPGLVQP ⁵ QSLSISCTVSGFSLT	TYGVY	WVRQSPGKGLEWLG	VIVSGGNTDYNAAFIS	RLIISKDMSKSQVFFK ¹ MNSLQAND ² TAIYYCAR	ISYDYDGAY	WGQGTLLTVSA	43
SC57.9	QVQLQSGPELMKPGASVKISCKATGYTFS	SYWIE	WVKQRPGHGLEWIG	EILPGSGSTEYNEKFKG	KATFTADTSSNTAYMQ ¹ LSLTSEDSDVVYCAR	KRYGTM DY	WGQGTSTVTVSS	47
SC57.10 (SC57.32)	QVQLQSGGAELMKPGASVKISCKATGYTFS	NYRIE	WIKQRPGHGLEWIG	EILPRGNTMYNEKFKG	KATFTADTSSNTAYMQ ¹ LSLTSED ² SAVVYCAR	DDGYGRFAY	WGQGTLLTVSA	51
SC57.11	QVQLQSGGAELMKPGASVKISCKATGYTFS	NYRIE	WMKQRPGHGLEWIG	EILPRTGNTMYNEKFKG	KATFTADTSSNTAYIQ ¹ LSLTSED ² SAVVYCAR	DDGYGRFAY	WGQGTLLTVSA	55
SC57.12	QVQLKESGPGLVAP ⁵ QSLSITCTVSGFSLT	SYGVH	WVRQPPGKGLEWLG	IIVAGGTTNYSALMS	RLSIRKDNMSKQVFLK ¹ MNSLQTD ² DTAMYYCAR	DRGYDGYFDYAVDY	WGQGTSTVTVSS	59
SC57.14	DVQLQESGPGLVKP ⁵ QSLSLTCSVTGYSIT	SGYYWN	WIRQFPGNKLEWMG	YISYDGYNNYDPSLKN	RISITRDTSKNQFFLKLNSVT ¹ TEDTATYYCAS	NYWYDAVFDY	WGQGTLLTVSS	63
SC57.15	DVQLQESGPDLVKP ⁵ QSLSLTCAVTGYSIT	SAYTWH	WIRQFPGNKLEWMG	YMHYSGSTSYNPSLKS	RISITRDTSKNQFFLQLNSVT ¹ TEDTATYYCAN	SLLYYGYGLYWYFDV	WGAGTTVTVSS	67

FIG. 6B

Anti-MFI2 Murine Antibody Amino Acid Variable Region Heavy Chain Sequences

Name	FR1	CDRH1	FR2	CDRH2	FR3	CDRH3	FR4	SEQ ID NO
SC57.17	EVQLQQSGAELVPGASVKLSCTASGFNIK	DTYMH	WVKQRPEQGLEWIG	RIDPANVNTSDDPKFQG	KATIAADTSSNTVYLQLSSLTSEDTA VYCAR	DYRYDGYYYAMDY	WGQGTSTVTVSS	71
SC57.20	DVQLQESGPDLVKPSQSLSLTCTVTGYSIT	SGYSWH	WIRQFPGNKLEWVG	FIHYSGSSNYPFLKS	RISITRDTSKNQFFLQMN SVNTEDATYYCSR	KGSFYPM DY	WGQGTSTVTVSS	75
SC57.27	ELKLVESGGDLVPGGSLKLSCAASGFSFN	NYAMS	WVRQTPEKRLEWVA	SISGGTTFYPDSVKG	RFTMSRDHARNILY LQWMSLRSEDTAMYYCVR	GQWLSLYSMDY	WGQGTSTVTVSS	79
SC57.31	QVHLKESGPGLVAPSQSLSLITCTVSGFSLT	TYGVH	WVRQPPGKGLEWLG	VIWAGGSTKYNSAFMS	RLSISKDNSKTQVLLK WMSLQTDDTAMYYCAR	VASHGSSSWFAY	WGQGTSTVTVSA	83
SC57.43	EVKLVESGGGLVQPGGSLKLSCAASGFTFG	SYTMS	WVRQTPEKRLEWVA	YISNGGYVYYYPDTVKG	RFTISRDNAKNTLY LQWSSLKSEDTAMYYCAR	GYDMYFDV	WGAGTTTVTVSS	87
SC57.60	QVQLQQSGAELVPGSSVKISCKASGYAFS	SYMMN	WVKQRPGQGLEWIG	QIYPGDGDTN YNGKF KG	KATLTADKSSSTAYMQ LSSLTSEDSAVYFCAR	AYYGNLYVMDY	WGQGTSTVTVSS	91

FIG. 6B Cont.

Anti-MFI2 Humanized Antibody Amino Acid Variable Region Heavy Chain Sequence

Name	FR1	CDRH1	FR2	CDRH2	FR3	CDRH3	FR4	SEQ ID NO
hSC57.5	EVQLVQSGAEVKKPGESLKISCKGSGYSFT	DYYLH	WVRQMPGKGLEWMG	RINPYNGATSYNQIFKD	QVTISADKKSISTAYLQWSSLKASDTAMYYCAR	GGDYDFPWY	WGQGTITVTVSS	95
hSC57.5v1	EVQLVQSGAEVKKPGESLKISCKGSGYSFT	DYYLH	WVRQMPGKGLEWMG	RINPYNAATSYNQIFKD	QVTISADKKSISTAYLQWSSLKASDTAMYYCAR	GGDYDFPWY	WGQGTITVTVSS	97
hSC57.32	QVQLVQSGAEVKKPGASVKVCKASGYTFT	NYRIE	WVRQAPGQGLEWMG	EILPRGGNTNYPEKFG	RVFTTADTSTSTAYMELRSLRSDDTAVVYCAR	DDGYGRFAY	WGQGTITVTVSS	101
hSC57.32v1	QVQLVQSGAEVKKPGASVKVCKASGYTFT	NYRIE	WVRQAPGQGLEWMG	EILPRGGNTNYPEKFG	RVMTADTSTSTAYMELRSLRSDDTAVVYCAR	DDGYGRFAY	WGQGTITVTVSS	103
hSC57.43	QVQLVESGGGVQPGRSLRLSCAASGFTFG	SYTMS	WVRQAPGKGLEWVA	YISNGGVVYYPDVTKG	RFTISRDNKNTLYLQWNSLRAEDTAVVYCAR	GVDWYFDV	WGQGTITVTVSS	107

FIG. 6B Cont.

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.1	Light Chain	CAAAATTGTTCTCACCCAGTCTCCAGCAATCATGTCTGCATCTCAGGGGAGAAGGTCAACATGACCTGCAGTCCAGCTCAAGTGTAAAGTTACATGCACCTGGTACCAGCAGAAGTCAGGCACCTC CCCCAAAGATGGATTATGACACATCCAAACTGGCTTCAGTTCGCTTCAGTGGCAGTGGGTCTGGGACCTCTTACTCTCTACAATCAGCAGCATTGAGGCTGACGATGCTGCCA CTTATTACTGCCAGCAGTGGAGTAGAACCCACCCACGTTCCGAGGGGGGACCAAGCTGGAAATAAAA	20
SC57.1	Heavy Chain	CAGGTGCAACTGAAGCAGTCAGGACCTGGCTAGTGAGCCCTTCACAGAGCCCTGCATCACCTGCACAGTCTCTGGTTTCTCATTAACCTGACTATGGTGTACACTGGGTTCCGCCAGTCTCCAGG AAAGGGTCTGGACTGGCTGGGAGTGATATGGAGTGGTGGAAACACAGACTATTAATGCAGCTTTCATATCCAGACTGAGCATCAGCAAGGACAAATTTCTTTTGAATGAACA GTCTACAAGATACTGACACAGCCATATATTACTGTGCCAGACAACTTCATTACTACGGCCCTTTGCTTACTGCGGCAAGGACTCTGGTCACTGTCTCTGCA	22
SC57.3	Light Chain	GATATTGTGCTAACTCAGTCTCCAGCCACCCTGTCTGTGACTCCAGGAGATAGCGTCAGTCTTTCTCTGCAGGGCCAGCCAAAGTATTAGCAACAACCTACACTGGTATCAACAAAAATCACATGA GTCTCCAAGGCTTCTCATCAAGTATGCTTCCAGTCCATCTCTGGGATCCCTCCAGGTTACGCGGAGTGGATCAGGGACAGATTTTCGCTCTCAGTATCAACAGTGTGGAGACTGAAGATTTTG GAATGTTTTTCTGTCAACAGAGTAACAGTGGCCGCTCACGTTCCGTCGTTGGACCAAGCTGGAGCTGAAA	24
SC57.3	Heavy Chain	CAGGTGCAGCTGAAGCAGTCAGGACCTGGCTAGTGAGCCCTTCACAGAGCCCTGCATCACCTGCACAGTCTCTGGTTTCTCATTAAGTAGTTATGGTGTACACTGGGTTCCGCCAGTCTCCAGG AAAGGGTCTGGAAATGGCTGGGAGTGATATGGAGTGGTGGAAACACAGACTATTAATGCAGCTTTCATATCCAGACTGAGCATCAGCAAGGACAACTCCAAGAGCCAAAGTTTTCTTTAAAAATGAACA GTCTGCAAGCTGATGACACAGCCATATATTACTGTGCCAGAGGAATAACTCGGCTGGTTGCTTACTGGGGCCCAAGGACTCTGGTCACTGTCTCTGCA	26
SC57.4	Light Chain	GATGTTGTGATGACCCAAACTCCACTCTCCCTGCTGTGAGTCTTGGAGATCAAGCTCCATCTCTTGCAGATCTAGTCAGAGCCTTGTACACAGTAAATGGAAACACCTATTTACATTGGTACCT TCAGAAAGCCAGGCCAGTCTCAAAGCTCCTGATCTACAGAGTTTCCAATCGATTTCTGGGGTCCAGAGAGGTTCAAGTGGATCAGGGACAGATTTTCACTCAAGATCAGCAGAGTGG AGGCTGAGGATCTGGGAGTTTATCTCTGCTCTCAAAGTACACATGTTCCGCTCACGTTCCGTCGTTGGACCAAGCTGGAGCTGAAA	28
SC57.4	Heavy Chain	GAGATCCAGCTGCAGCAGTCTGGACCTGAGATGGTGAAGCCTGGGGCTTCAGTGAAGGTAACTGCAAGGCTTCTGGCTACTCATTTCACTGACTTCAACATGCACTGGATGAACAGAGCCATGG AAAGAGCCTTGAGTGGATTGGATATATTGATCTTCAAAAGGTGGTATTAGTACAAACAGAAAGTTCAAGGGCAGGGCCACATTGACTGTTGACAAAGTCTCTCCAGCACAGCCTTTCATGCTCTCA ATAGTCTGACATCTGACGACTCTGCAGTCTATTACTGTGCAAGAGATTACTAGGGTAGTAGATTCCTTACTATTTTGATTACTGGGGCCCAAGGACCACTCTCACAGTCTCCTCA	30

FIG. 6C

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

WO 2016/037119

PCT/US2015/048659

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.5	Light Chain	GACATTGTGATGACCAGTCTCACAAATTCATGTCCACATCAGTAGAGACAGGGTCAGCATCACCTGTAAAGCCAGTCAGGATGTGTATGCTGCTGTAGCTGGTATCATCAAAAACACAGGGCAATCTCTAAACTACTGATTTACTGGGCATCCACCCGGACAGCTGGAGTCCCTGATCGCTTACAGGACAGATTACTCTCACCATCAGCAGTGTGCAGGCTGAAGACCTGGCACATTTACTGTGACGCAACATTATCGCACTCCGTGGACGTTCCGTGGAGGCACCAAGCTGGAAATCAAA	32
SC57.5	Heavy Chain	GAGGTCACAGCTGCAACAGTCTGGACCTGAGCTGGTGAAGCCTGGGGCCTCAGTGAAGATATCTCTGAAGCCTTCGTTTACTCATTCACTGACTACTATTGCAGCTGGGTGAAGCAAGCCATGTAAAGAGCCTTGAGTGGATTGGACGGATTAACTCTTACAATGGTGCTACTAGTTACAACAGATTTTCAAGGACAAGGCCAGCTTGACTGTAGATAAGTCTCCAGCAGCAGCTACATGGACCTCCACAGCTGACATCTGAGGACTCTGAGTCTATTACTGTGCAAGAGGGGGACTATGATTTTCCCTGTGACTGGGGCAAGGCACACTCTCACAGTCTCCCCA	34
SC57.6	Light Chain	GACATTGTGATGTCCAGTCTCCGTCTCCCTGGCTGTGTGACAGGGGAGAGGTCACTATGAGCTGCAAAATCCAGTCAGAGTCTGCTCCACAGTAGAATCCGAAAGAACTACTTGGCTTGGTACCAGCAGAAACACAGGGCAGTCTCCTAAACTGCTGATCTACTGGGCATCCACTAGGGAAATCTGGGGTCCCTGATCGCTTACAGGACAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTGTGCAGGCTGAAGACCTGGCAGTTTATTACTGCAAGCAATCTTATAATCTGTTACGTTCCGAGGGGGACCAAACTGGAAATAAAA	36
SC57.6	Heavy Chain	GGAGTGCAGGTGGTGGAGTCTGGGGGAGGTGTAGTGCAGCTGGAGGGTCCCTGAAACTCTCTCTGTGAGCCTCTGGATTCACTTTCAGTAGCTATGCCATGTCTTGGGTTCCGCCAGACTCCAGAGAAAGAGGCTGGAGTGGTTCGCATACCTTAGTAGGGGTGGTGGTAGCACCTATTATCTAGACACTGTAAAGGGCCGATTCACCATCTCCAGAGACAAATGCCAAGAACACCCCTGTACCTACAAATGAACAGTCTGAAAGTCTGAGGACACAGGCATGTATTACTGTGCAAGACTGGATGGTTTACAATCTGACTTTCGATGTCTGGGGCGCAGGGACCCCGGTCAACCGTCTCCTCA	38
SC57.8	Light Chain	GACATTGTGATGACCAGTCTCACAAATTCATGTCCACATCAGTAGAGACAGGGTCAACATCACCTGCAAGGCCAGTCAGGATGTGGGTAGGACTGTAGCTGGTATCAACAGAAACACAGGGCAATCTCTAAACTACTTATTACTGGGCATCCACCCGGCACACTGGAGTCCCTGATCGCTTACAGGACAGTGGATCTGGGACAGATTTCACTCTCATTATTAGCAATGTGCAGTCTGAAGACTTGGCAGATTATTTCTGTAGCAATATAGCAGCTATCCTCTCACGTTCCGTTGCTGGGACCAAGCTGGAGCTGAAA	40
SC57.8	Heavy Chain	CAGGTGCAGCTGAAGCAGTCAGGACCTGGCCTAGTGCAGCCCTCACAGAGCCTGTCCATCTCCTGGCAGTCTCTGGTTTCTCATTAACTACCTATGGTGTACTGGGTTCCGCCAGTCTCCAGGAAAGGGTCTGGAGTGGCTGGGAGTGATATGGAGTGGTGGAAAGCACAGACTATTAATGCAGCTTTCATATCCAGACTGATCATCAGCAAGGACAAATTCAGAGGCAAGTTTTTCTTTAAATGAACAGTCTGCAAGCTAATGACACAGCCATATATTACTGTGCCAGAAATCTCCTATGATTACGACGGGGCTTACTGGGGCCAAGGGACTCTGGTCACTGTCTCTGCA	42

FIG. 6C Cont.

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.9	Light Chain	CAAAATTGTTCTCACCAGTCTCCAGCAATCATGTCTGCATCTCCAGGGGGAAGGTCAACATAACCTGCAAGTGCAGCTCAAGTGTAAAGTTACATGCACTGGTTCCAGCAGAAAGCCAGGCACCTTC TCCCAAACCTCTGGATTATACACATCCAACCTGGCTCTGGAGTCCCTGCTGCTTCAGTGGCAGTGGATCTGGAACCTCTTACTCTCACAATCAGCCGAATGGAGGCTGAAGATGCTGCGCA CTTATTACTGCCAGCAAGGAGTAGTTTCCCAACCCACGTTCCGGCTCGGGGACAAAGTTGGAAATAAAA	44
SC57.9	Heavy Chain	CAGGTTCAAGCTGAGAGCTGAGCTGATGAAGCCTGAGGCTCTGCAAGGCTACTGGCTACACATTCACTAGCTACTGGATAGAGTGGGTAAAGCAGAGGCTGG ACATGGCCTTGAGTGGATTGGAGAGATTTTACCTGGAAGTGGTAGTACTGAGTATAATGAGAAGTTCAAGGGCAAGGCCACATTCACCGCAGATACATCTTCCAACACAGCTTACATGCAACTCA GCAGCCTGACATCTGAGGACTCTGACGTCTATTACTGTGCAAGAAAGGTAACGGGACTATGGACTACTGGGCTCAAGGAACCTCAGTCACCGTCTCTCTCA	46
SC57.10 (SC57.32)	Light Chain	GATATCCAGATGACACAGACTACATCTCCCTGTCTGCCCTCTCTGGGAGACAGAGTCAACCATCAGTTGCAAGGCAAGTCAAGGACATTAGCAATTTTAAACTGGTATCAGCAGAAACACAGATGG AACTGTTAAACTCTGTATCTTTTACACATCAAGATTACACTCAGGAGTCCCATCCAGGTTCAAGTGGTAGTGGGCTGGAACAGATTATTCTCTCACCATTAGCAACCTGGAAACAAGAGATTTTGG CCACTTACTTTTCCCAACAGGGTAATACGCTTCTCTCCAGCTTCGGTGGAGGCCAACAGCTGGAAATCAAA	48
SC57.10 (SC57.32)	Heavy Chain	CAGGTTCAAGCTGAGAGCTGAGCTGATGAAGCCTGAGGCTCTGCAAGGCTACTGGCTACACATTCACTAGCTACTGGATAGAGTGGGTAAAGCAGAGGCTGG ACATGGCCTTGAGTGGATTGGAGAGATTTTACCTAGAGGTGGTAATACTAACTACAATGAGAAGTTCAAGGGCAAGGCCACATTCCTCAGATACATCTTCCAACACAGCTTACATGCAACTCA CCAGCCTGACATCTGAGGACTCTGCCGTCTATTACTGTGCAAGGGATGATGGTTACTACGGGAGGTTTGGCTTACTGGGGCCCAAGGGACTCTGGTCACTGTCTCTGCA	50
SC57.11	Light Chain	GATATCCAGATGACACAGACTACATCTCCCTCTCTGCCCTCTCTGGGAGACAGAGTCAACCATCAGTTGCAAGGCAAGTCAAGGACATTAGCAGTTTATTAAACTGGTATCAGCAGAAACACAGATGG AACTGTTAAACTCTGTATCTATTACACATCAAGATTACACTCAGGAGTCCCATCAAGGTTCAAGTGGCAGTGGGCTGGAACAGATTATTCTCTCACCATTAACCAACCTGGAGCAAGAGATATTG CCACTTACTTTTCCCAACAGGGTAATACGCTTCTCTCCAGCTTCGGTGGAGGCCAACAGCTGGAAATCAAA	52
SC57.11	Heavy Chain	CAGGTTCAAGCTGAGAGCTGAGCTGATGAAGCCTGAGGCTCTGCAAGGCTACTGGCTACACATTCACTAGCTACTGGATAGAGTGGGTAAAGCAGAGGCTGG ACATGGCCTTGAGTGGATTGGAGAGATTTTACCTAGAACTGGTAATACTAACTACAATGAGAAGTTCAAGGGCAAGGCCACATTCCTCAGATACATCTTCCAACACAGCTTACATCAACTCA GCAGCCTGACATCTGAGGACTCTGCCGTCTATTACTGTGCAAGGGATGATGGTTACTACGGGAGGTTTGGCTTACTGGGGCCCAAGGGACTCTGGTCACTGTCTCTGCA	54

FIG. 6C Cont.

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.12	Light Chain	GACATCCAGATGACTCAGTCTCCACCCCTCCCTATCTGCATCTGTGGAGAAACTGTCAACATCACATGTCGAACAAGTGAGAATATTTACAGTTATTTAACATGGTATCAGCAGAAACAGGGAAAATCTCCTCAGCTCTGGTCTATAATGCAAAACCTTAGCAGAGGGGTGCCATCAAGGTTTCAGTGGCAGTGGATCAGGCACACAGTTTTTCTCTGAAGATCAACAGCCTGCAGCTGAGGATTTTG GGAGTTATTACTGTCAACATCATTATGGTACTCCGCTCACGTTCCGGTGC TGGACCAAGCTGGAGCTGAAA	56
SC57.12	Heavy Chain	CAGGTGCAGCTGAAGGAGTCAGGACCTGGCTGGTGGCGCCCTCACAGAGCCCTGTCCATCACTTGCACGTGCTCTGGGTTTTTCATTAAACAGTTATGGTGACACTGGGTTTCGCAGAGCCTCCAGGAAAGGGTCTGGAGTGGCTGGGAATTATATGGGCTGGTGGAAAC CACAAATTATAATTGGGCTCTCATGTCCAGACTGAGCATCAGAAAGACAACCTCAAGAGCCAAAGTTTTCTTTAAAAATGAACA GTCTGCAAACTGATGACACAGCCATGACTACTGTGCCAGAGATAGGGGCTATGATGGTTACTTTCGACTATGCTGTGGACTACTGGGGTCAAGGAACCTCAGTACCCGTCCTCTCA	58
SC57.14	Light Chain	GACATTGTGATGTACAGTCTCCATCTCCCTGGCTGTGTGTCAGCAGGAGAGAAGGTCACTATGAGCTGCAAAATCCAGTCAGAGTCTGCTCAACAGTAGAAACCCGAAAGAACTACTTTGGCTTGGTACCAGCAGAAACCAGGCAGTCTCTAAACTGCTGATCTACTGGGCATCCACTAGGGAATCTGGGTCCTCTGATCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTGTGAGGCTGAAGACCTGGCAGTTTATTACTGCAAGCAATCTTATAATCTGTGGACGTTCCGGTGGAGGCCAACAGCTGGAAATCAAA	60
SC57.14	Heavy Chain	GATGTACAGCTTCAGGAGTCAGGACCTGGCTCGTGAACCTTCTCAGTCTCTGTCTCTCACCTGCTCTGTCACTGGCTACTCTCATCACAGTGGTTATTTACTGGAACTGGATCCGGCAGTTTCCAGGAACAAACTGGAAATGGATGGGCTACATAAGCTACGACGGTTACAATACTAGACCCATCTCTCAAAATCGAATCTCCATCACTCGTGACACATCTAAGAACCAGTTTTTCTCTGAAAGTTGATTCTGTGACTACTGAGGACACAGCTACATATTACTGTGCAAGCAACTATTGGTACGACGCTTACTTTGACTACTGGGGCCCAAGGCACCCTCTCACAGTCTCCCTCA	62
SC57.15	Light Chain	GACATCCAGATGACTCAGTCTCCAGCTTCACTGTCTGCATCTGTGGGAGAAACTGTCAACATCACATGTGGAGCAAGTGAGAATATTTAACGGTGTCTTTAAATTTGGTATCAGCGGAAACAGGGAAAATCTCCTCAGCTCTGATCTATGGTGC AACCACTTGGCAGATGGCATGTCTCAGAGTTTCAGTGGCAGTGGATCTGGTGGACAGTATTTCTCTCAAGATCAGTGGCCTGCATCTCTGCCGATGTTGCAACGTATTACTGTCAAAATGTATTAATACTCCGTGGACGTTCCGGTGGAGGCCAACAGCTGGAAATCAAA	64
SC57.15	Heavy Chain	GATGTGCAGCTTCAGGAGTCAGGACCTGACCTGGTGAACCTTCTCAGTCACTTTCACTCACTGGCTGTCACTGAGTGTCTTATACCTACAGTGTCTTATACCTGGCATGGATCCGGCAGTTTCCAGGAAACAAACTGGAAATGGATGGGCTACATGCATACAGTGGTAGCATAGCTACAAACCCATCTCTCAAAAGTCGAATCTCTATCACTCGAGACACATCCAAGAACCAAGTTCTTCTCTGCAGTTGATTCTGTGACTACTGAGGACACAGCCACATATTACTGTGCAAAATTCCTCCTTTACTACGGCTACGGGTTGTACTGGTACTTTCGATGTCTGGGGCCGAGGGACCACGGTCAACCGTCTCCTCA	66

FIG. 6C Cont.

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

WO 2016/037119

PCT/US2015/048659

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.17	Light Chain	GATATCCAGATGACACAGACTACATCCTCCCTGCTGCTCTCTGGGAGACAGAGTCACCATCAGTTGCAGTGCAGGTAAACAAATTTATTTAACTGGTATCAACAGAAACCCAGATGGAACTGTTAAACTCCTGATCATTTACACATCAAGTTTACACTCAGGAGTCCCATCAAGGTTTCAGTGGCAGTGGTCTGGGACAGATTATTCTCTCACCATCAGCAACCTGGAACTTGAAGATATTTGCCACTTACTATTGTGACGAGATAGTAAGGTTCCGTGGACGTTCCGTGGAGGCCCAAGCTGGAAATCAAA	68
SC57.17	Heavy Chain	GAAGTTTCAGCTGCAGCAGTCTGGGGCAGAGCTTGTGAAGCCAGGGGCTTCAGTCAAGTTGCTCTGCACAGCTTCTGGCTTCAACATTTAAAGACACCTATATGCACTGGGTGAAGCAGAGGCTTGAACAGGGCTTGGAGTGGATTGGAAGGATTGATCCAGCGAAATGTAAATAGTATGATGACCCGAAGTTCCAGGGCAAGGCCCACTATAGCAGCAGACACACATCTCTCAACACAGTTTACCTTGCAGCTCAGAGCCTGACATCTGAGGACACTGCCGTCTATTATTGTGCTAGAGACTATAGGTACGACGGATATTACTATGCAATGGACTACTGGGGTCAAGGAACCTCAGTCAACCGTCTCCTCA	70
SC57.20	Light Chain	GACATTGTGATGACCCAGTCTCACAAATTCATGTCCACATCAGTAGGAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAAGATGTGGGTTCTGCTGTTGCCCTGGTCTCAACAGAAACCCAGGACAATCTCTAAACTACTGATTACTGGGCATCCTCCGGCACACTGGAGTCCCTGATCGCTTTCACAGGCAGTGGATCTGGGACAGATTTCACCTCTCACCATTAGCAATGTGCAGTCTGAAAGACTTGGCAGATTATTTCTGTGACGAATATAGCAACTATCTCTCACGTTCCGTGCTGGACCAAGCTGGAGCTGAAA	72
SC57.20	Heavy Chain	GATGTGCAGCTACAGGAGTCAGGACCTGACCTGGTGAACCTTCTCAGTCACCTTTCACCTCACCTGCACTGCTCACTGGCTACTCCATCACCAGTGGTTATAGCTGGCACTGGATCCGGCAGTCTTCCAGGAAACAAACTGGATGGATGGCTTTCATACACTACAGTGGTAGCTCTAACTACAAACCTATTTCTCAAAAGTCTGAATCTCTATCACTCGAGACACATCTCAAGAAACCCAGTCTCTCTGCAAGATGAATCTGTGAATACAGAGGACACAGCCACATATTACTGTTCAAGAAAAGGCTCCTTCTATCTCTGACTACTGGGGTCAAGGAACCTCAGTCAACCGTCTCCTCA	74
SC57.27	Light Chain	GACATCCAGATGACTCAGTCTCCAGTCTCCCTATCTGCACTCTGTGGGAGAACTGTCAACATCACATGTCGAGCAAGTGAGATTATTTACAGTTATTTAGCATGGTATCAGCAGAAACAGGGGAAAATCTCTCAGCTCCTGGTCTATAAATGCAAAACCTTAGCAGAAGGTGTGCCATCAAGGTTTCAGTGGCAGTGGATCAGGCACACAGTTTTCTCTGAAGATCAACAGCCTGCAGCCTGAAAGATTTTGGACTTATTACTGTCAACATCATTATGGTGTCTCTGTACAGTTCGGTGTGGACCAAGCTGGAGCTGAAA	76
SC57.27	Heavy Chain	GAACGTGAACCTGGTGGAGTCTGGGGAGACTTAGTGAAGCCCTGGAGGGTCCCTGAAACTCTCTCTGTGCAGCCTCTGGATTCTCTTTCAATAACTATGCCATGTCTTGGGTTCGTGAGACTCCAGAGAAGAGGCTGGAGTGGGTCCGATCCATTAGTAGTGGTGGAACTACGTTCTATCCAGACAGTGTGAAGGCCGATTTTACCATGTCCAGAGATCATGCCAGGAACATCTCTGTACCTGCAAAATGAACA GTCTGAGGTCTGAGGACACGGCCATGTATTACTGTGTAAGAGGCCAATGGTTATCACTCTATTCTATGGACTACTGGGGTCAAGGAACCTCAGTCAACCGTCTCCTCA	78

FIG. 6C Cont.

Anti-MFI2 Murine Antibody Nucleotide Variable Region Sequences

Name	Chain	Nucleic Acid Sequence	SEQ ID NO
SC57.31	Light Chain	GATATTGTGCTAACTCAGTCTCCAGCCACCCTGTCTGTGACTCCAGGAGATAGCGTCAGTCTTTCTGCAAGGCCAGCCAAAGTGTGGCAACAGCCTACACTGGTATCAACAAAAATCAGATGATGCTCCAAAGGCTTCTCATCAAGTATGCTTCCAGTGCATCTCTGGGATCCCTCCAGGTTCAAGTGGATGATCAGGAGACAGATTTCACTCTCAGTATCAACAGTGTGGAGACTGAAGATTTTGGAATGTATTTCTGTCAACAGAGTGACAGCTGGCCGCTCACGTTCCGTACTGGGACCAAGCTGGAGCTGAAA	80
SC57.31	Heavy Chain	CAGGTGCACCTGAAGGAGTCCAGGACCTGGCTGGTGGCGCCCTCACAGAGCCCTGTCCATCACCTTGCACTGTCTCTGGGTTTTCATTAAACCACTATGGTGACACTGGGTTTCGCCAGCCTCCAGGAAAGGGTCTGGAGTGGCTGGGAGTAAATATGGGCTGGTGGGAGCACAATAATATTCCGCTTTTCATGTCAGACTAGCATTACAGAACCACTCAAGACCCAAAGTTCTCTTTAAAAATGAACA	82
SC57.43	Light Chain	GTCTGCAAACTGATGACACAGCCATGTAATACTGTGTCAGAGTGGCTCCACAGGTAGTAGCTCTGGTTTGCCTTACTGGGCCAAGGGACTCTGGTCACTGTCTCTCTGCA	84
SC57.43	Heavy Chain	GATGTTGTGATGACCCAAACTCCACTCTCCCTGCTGTCACTCTTTGGAGATCAAGCCTCCATCTCTTTGCAAGTCTAGTCCAGAGCCTTTGTACACAGTAATGGAAACCACTATTTACATTTGGTACCTGCAGAAAGCCAGGCCAGTCTCCAAAGTCTCTGATCTACAAAGTTTCCAAACGATTTTCTGGGGTCCAGACAGGTTCAAGTGGAGTGGATCAGGACAGATTTACACTCAAGATCAGCAGAGTGGAGGCTGAGGATCTGGAGTTTATTTCTGCTCTCAAAGTACACATGTTCTCTGTACACGTTCCGAGGGGGACCAAGCTGGAAATAAAA	86
SC57.60	Light Chain	GACATCCAGATGACTCAGTCTCCAGCCTCCCTATCTGCATCTGTGGGAGAAAAGTCAACATCACATGTCGAGCAAGTGAGAATATTTACAGTTATTTAGCATGGTCTCAGCAGAAGCAGGGAAAATCTCTCACCTCTGGTCTATAATGCAAAAACCTTAGCAAGAGTGTGCCATCAAGGTTCAAGTGGAGTGGATCAGGCACACAGTTTCTCTGAAGATCAACAGCCTGCAGCCTGAAGATTTTGGAGTTATTTACTGTCAACATCATTATGGTATTCGCTCACGTTCCGTGCTGGGACCAAGCTGGAGCTGAAA	88
SC57.60	Heavy Chain	CAGGTTCAAGTCCAGCAGTCTGGGGCTGAGCTGGTGGAGCCCTGGGTCCTCAGTGAAGATTTTCTGCAAGGCTTCTGGCTATGCACTTCACTAGTACTCTGGATGAATGGGTTGAAGCAGAGGCTCGACAGGGCTTGGAGTGGACAGATTTATCTCTGGAGATGGTGATCTAACTACAAATGGAAAGTTCAAGGGTAAAGCCACATTTGACTGCGAGACAAATCCTCCAGCACAGCCTACATCGAGCTCA	90

FIG. 6C Cont.

Anti-MFI2 Humanized Antibody Nucleotide Variable Region Sequences

WO 2016/037119

PCT/US2015/048659

[illegible]

FIG. 6C Cont.

Anti-MFI2 Humanized Antibody Nucleotide Variable Region Sequences

WO 2016/037119				PCT/US2015/048659			
Name	Chain	Nucleic Acid Sequence	SEQ ID NO				
hSC57.43	Light Chain	GACATCGTAATGACACAGTCTCCAGATAGTCTCGCCGTGAGTCTGGGAGAGCGTGCTACTATCAACTGTCGGTCTTCTCAGTCCCTCGTCCATTCTAATGGAAACACTTACCTCCATTGGTATCAGCAGAAACCCGGTCAGCCACCAAAGTTGCTGATATACAAGGTTCTCAACCGCTTTAGCGGGTGCTGATCGTTTCAGCGGGTCAGGAAGCGGGACAGACTTCACCTTGACAATA TCATCTCTGCAGGCAGAAAGATGTAGCCGTGATTACTGCTCCCAAGTCTACACACGTACCTCTGTACACATTTCGGGGGCGGCACCAAGGTGGAGATTAAAG	104				
	Heavy Chain	CAGGTGCAGCTGGTGGAAATCTGGTGGCGAGTGGTGCAGCTGGCAGATCCCCTGAGACTGTCTTTGTGCCGCTCCGGCTTCACCTTCGGCTCCTACACCATGTCTCTGGGTGCGACAGGCTCCTGGCAAGGGCCTGGAAATGGGTGGCTACATCTCCAACGGCGGCTACGTGACCTACTACCCGACACCGTGAAGGGCCGGTTCAACATCTCTCGGGACAACCTCAAGAACACCCCTGTACCTGCAGATGAACTCCCTGGGGCCGAGGACACCGCGTGTACTATTGTGCCAGAGGCTAGGACTGGTACTTCGACGTGTGGGGCCAGGGCACCCACCGTGACAGTGTCACTCT	106				

FIG. 6C Cont.

Anti-MFI2 Humanized Antibody Full Length Amino Acid Sequences

Name	Chain	Full Sequence	SEQ ID NO
hSC57.5	Light Chain	DIQMTQSPSSLSASVGDRVTITCKAQDVVAAMVQQKPKAPKLLIYNASTRHAGVPSRFSGSGSGTDFTLTISSLQPEDFATYYCQQHYRTPTWTFGGGTKEIKRTVAAPSVEIFPPPSDEQLKSGTASVVCLLNNFY PREAKVQMKVDNALQSGNSQESVTEQDSKDSITYSLSSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC	108
hSC57.5	Heavy Chain	EVQLVQSGAEVKKPGEESLKISCKGSGYSFTDYYLHMVRQMPGKGLWMGRINPYNAATSYNQIFKDKQVTISADKSIISTAYLQWSSLKASDTAMYYCARGGDYDFPMYWGQGTITVTVSSASTKGPSVFPLAPSSKSTSGGT AALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWV DGEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSEFFLYSKLTVDKSRMQQ GNVFSCVMHEALHNHYTQKSLSLSPG	109
hSC57.5v1ss1	Heavy Chain	EVQLVQSGAEVKKPGEESLKISCKGSGYSFTDYYLHMVRQMPGKGLWMGRINPYNAATSYNQIFKDKQVTISADKSIISTAYLQWSSLKASDTAMYYCARGGDYDFPMYWGQGTITVTVSSASTKGPSVFPLAPSSKSTSGGT AALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWV DGEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSEFFLYSKLTVDKSRMQQ GNVFSCVMHEALHNHYTQKSLSLSPG	110
hSC57.5v1	Heavy Chain	EVQLVQSGAEVKKPGEESLKISCKGSGYSFTDYYLHMVRQMPGKGLWMGRINPYNAATSYNQIFKDKQVTISADKSIISTAYLQWSSLKASDTAMYYCARGGDYDFPMYWGQGTITVTVSSASTKGPSVFPLAPSSKSTSGGT AALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWV DGEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSEFFLYSKLTVDKSRMQQ GNVFSCVMHEALHNHYTQKSLSLSPG	111
hSC57.32	Light Chain	DIQMTQSPSSLSASVGDRVTITCRASQDISNYLNMVQQKPKAPKLLIYYTSRLHSGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQQGNTLPPTFGGGTKVEIKRTVAAPSVEIFPPPSDEQLKSGTASVVCLLNNFY PREAKVQMKVDNALQSGNSQESVTEQDSKDSITYSLSSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC	112
hSC57.32	Heavy Chain	QVQLVQSGAEVKKPGASVKVKCKASGYTFITNYRIEHWRAQPGQGLEWMGEILPRGGNTNYNEKFKGRVITFTADTSTISYAMELRSLSRDDTAIVYCARDDGYGRFAYWGQGTITVTVSSASTKGPSVFPLAPSSKSTSGG TAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWV VDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPPVLDSDGSEFFLYSKLTVDKSRMQQ QGNVFSCVMHEALHNHYTQKSLSLSPG	113

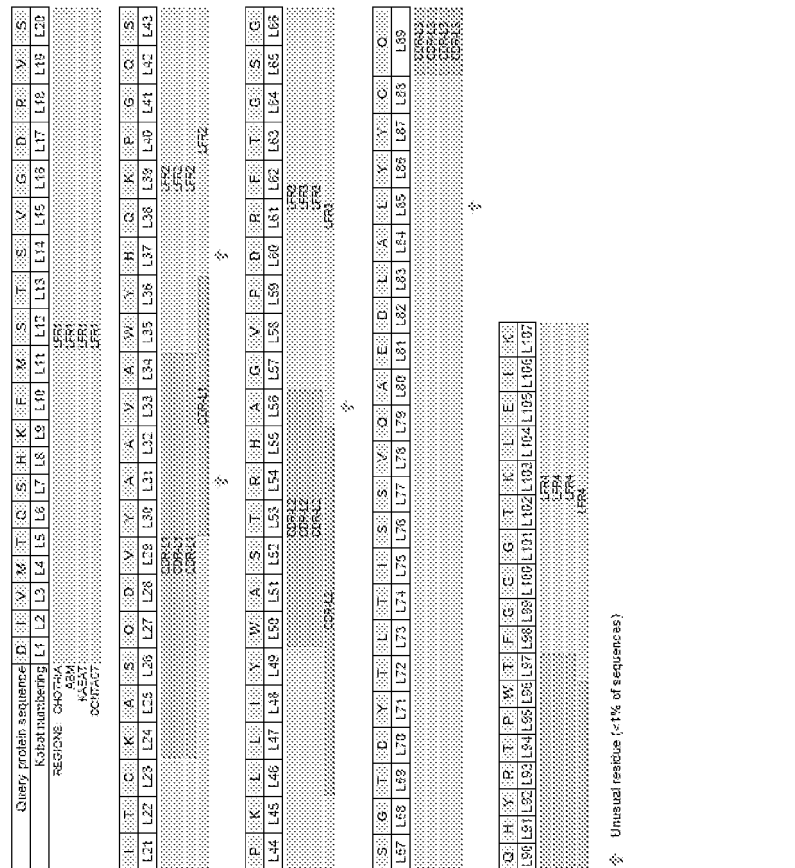
FIG. 6D

Anti-MFI2 Humanized Antibody Full Length Amino Acid Sequences

Name	Chain	Full Sequence	SEQ ID NO
h5C57.32ss1	Heavy Chain	QVQLVQSGAEVKPGASVKYSCKASGYTFITNRIEWRQAPGQGLEWMGELLPRGNTNINEKFKGRVTFITADTSTSTAYMELRSLRSDDTAVVYCARDGGYYGRFAYMGQGLTIVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSDKTHTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVWVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVWEWSNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVDFCSVMHEALHNHYTQKSLSLSPG	114
h5C57.32v1	Heavy Chain	QVQLVQSGAEVKPGASVKYSCKASGYTFITNRIEWRQAPGQGLEWMGELLPRGNTNINEKFKGRVTMTADTSTSTAYMELRSLRSDDTAVVYCARDGGYYGRFAYMGQGLTIVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSDKTHTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVWVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVWEWSNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVDFCSVMHEALHNHYTQKSLSLSPG	115
h5C57.43	Light Chain	DIIVMTQSPDLSAVSLGERATINCRSSQSLVHSNGNTYLLHWYQQKPGQPKLLIYKVSIRFSGVDRFSGSGSDTFTLTISSLQAEDVAVVYCSQSTHVPITYFGGGTKVEIKRTVAAPSVFIFPPPSDEQLKSGTASVWCLLNNFYPREAKVQMKVDNALQSGNSQESVTEQDSKDSYSLSSLTLTLSKADYEKKHKVYACEVTHQGLSSPVTKSFNRGEC	116
h5C57.43	Heavy Chain	QVQLVQSGGGVVPGRSLRLSCAASGFTFGSYTMSWRQAPGKGLEWAVYISNGGVVTVYPDIVKGRFTISRDNKNTLYLQMNISLRAEDTAVVYCARGYDAVFDWMGGGTTTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSDKTHTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVWVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVWEWSNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVDFCSVMHEALHNHYTQKSLSLSPG	117
h5C57.43ss1	Heavy Chain	QVQLVQSGGGVVPGRSLRLSCAASGFTFGSYTMSWRQAPGKGLEWAVYISNGGVVTVYPDIVKGRFTISRDNKNTLYLQMNISLRAEDTAVVYCARGYDAVFDWMGGGTTTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSDKTHTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVWVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVWEWSNGQPENNYKTTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVDFCSVMHEALHNHYTQKSLSLSPG	118

FIG. 6D Cont.

CDRs of SC57.5



Light Chain

FIG. 9

CDRs of SC57.32

[illegible]

Light Chain

FIG. 6F

CDRs of SC57.43

Light and Heavy Chain Variable Regions

Query protein sequence																			
Kabat numbering																			
REGION CHOT44																			
Kabat																			
CONTACT																			
L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20
S	C	R	S	C	S	C	S	L	V	H	S	N	G	N	T	Y	L	H	W
L21	L22	L23	L24	L25	L26	L27	L28	L29	L30	L31	L32	L33	L34	L35	L36	L37	L38	L39	L40
L41	L42	L43	L44	L45	L46	L47	L48	L49	L50	L51	L52	L53	L54	L55	L56	L57	L58	L59	L60
L61	L62	L63	L64	L65	L66	L67	L68	L69	L70	L71	L72	L73	L74	L75	L76	L77	L78	L79	L80
L81	L82	L83	L84	L85	L86	L87	L88	L89	L90	L91	L92	L93	L94	L95	L96	L97	L98	L99	L100
L101	L102	L103	L104	L105	L106	L107	L108	L109	L110	L111	L112	L113	L114	L115	L116	L117	L118	L119	L120
L121	L122	L123	L124	L125	L126	L127	L128	L129	L130	L131	L132	L133	L134	L135	L136	L137	L138	L139	L140
L141	L142	L143	L144	L145	L146	L147	L148	L149	L150	L151	L152	L153	L154	L155	L156	L157	L158	L159	L160
L161	L162	L163	L164	L165	L166	L167	L168	L169	L170	L171	L172	L173	L174	L175	L176	L177	L178	L179	L180
L181	L182	L183	L184	L185	L186	L187	L188	L189	L190	L191	L192	L193	L194	L195	L196	L197	L198	L199	L200
L201	L202	L203	L204	L205	L206	L207	L208	L209	L210	L211	L212	L213	L214	L215	L216	L217	L218	L219	L220
L221	L222	L223	L224	L225	L226	L227	L228	L229	L230	L231	L232	L233	L234	L235	L236	L237	L238	L239	L240
L241	L242	L243	L244	L245	L246	L247	L248	L249	L250	L251	L252	L253	L254	L255	L256	L257	L258	L259	L260
L261	L262	L263	L264	L265	L266	L267	L268	L269	L270	L271	L272	L273	L274	L275	L276	L277	L278	L279	L280
L281	L282	L283	L284	L285	L286	L287	L288	L289	L290	L291	L292	L293	L294	L295	L296	L297	L298	L299	L300
L301	L302	L303	L304	L305	L306	L307	L308	L309	L310	L311	L312	L313	L314	L315	L316	L317	L318	L319	L320
L321	L322	L323	L324	L325	L326	L327	L328	L329	L330	L331	L332	L333	L334	L335	L336	L337	L338	L339	L340
L341	L342	L343	L344	L345	L346	L347	L348	L349	L350	L351	L352	L353	L354	L355	L356	L357	L358	L359	L360
L361	L362	L363	L364	L365	L366	L367	L368	L369	L370	L371	L372	L373	L374	L375	L376	L377	L378	L379	L380
L381	L382	L383	L384	L385	L386	L387	L388	L389	L390	L391	L392	L393	L394	L395	L396	L397	L398	L399	L400
L401	L402	L403	L404	L405	L406	L407	L408	L409	L410	L411	L412	L413	L414	L415	L416	L417	L418	L419	L420
L421	L422	L423	L424	L425	L426	L427	L428	L429	L430	L431	L432	L433	L434	L435	L436	L437	L438	L439	L440
L441	L442	L443	L444	L445	L446	L447	L448	L449	L450	L451	L452	L453	L454	L455	L456	L457	L458	L459	L460
L461	L462	L463	L464	L465	L466	L467	L468	L469	L470	L471	L472	L473	L474	L475	L476	L477	L478	L479	L480
L481	L482	L483	L484	L485	L486	L487	L488	L489	L490	L491	L492	L493	L494	L495	L496	L497	L498	L499	L500
L501	L502	L503	L504	L505	L506	L507	L508	L509	L510	L511	L512	L513	L514	L515	L516	L517	L518	L519	L520
L521	L522	L523	L524	L525	L526	L527	L528	L529	L530	L531	L532	L533	L534	L535	L536	L537	L538	L539	L540
L541	L542	L543	L544	L545	L546	L547	L548	L549	L550	L551	L552	L553	L554	L555	L556	L557	L558	L559	L560
L561	L562	L563	L564	L565	L566	L567	L568	L569	L570	L571	L572	L573	L574	L575	L576	L577	L578	L579	L580
L581	L582	L583	L584	L585	L586	L587	L588	L589	L590	L591	L592	L593	L594	L595	L596	L597	L598	L599	L600
L601	L602	L603	L604	L605	L606	L607	L608	L609	L610	L611	L612	L613	L614	L615	L616	L617	L618	L619	L620
L621	L622	L623	L624	L625	L626	L627	L628	L629	L630	L631	L632	L633	L634	L635	L636	L637	L638	L639	L640
L641	L642	L643	L644	L645	L646	L647	L648	L649	L650	L651	L652	L653	L654	L655	L656	L657	L658	L659	L660
L661	L662	L663	L664	L665	L666	L667	L668	L669	L670	L671	L672	L673	L674	L675	L676	L677	L678	L679	L680
L681	L682	L683	L684	L685	L686	L687	L688	L689	L690	L691	L692	L693	L694	L695	L696	L697	L698	L699	L700
L701	L702	L703	L704	L705	L706	L707	L708	L709	L710	L711	L712	L713	L714	L715	L716	L717	L718	L719	L720
L721	L722	L723	L724	L725	L726	L727	L728	L729	L730	L731	L732	L733	L734	L735	L736	L737	L738	L739	L740
L741	L742	L743	L744	L745	L746	L747	L748	L749	L750	L751	L752	L753	L754	L755	L756	L757	L758	L759	L760
L761	L762	L763	L764	L765	L766	L767	L768	L769	L770	L771	L772	L773	L774	L775	L776	L777	L778	L779	L780
L781	L782	L783	L784	L785	L786	L787	L788	L789	L790	L791	L792	L793	L794	L795	L796	L797	L798	L799	L800
L801	L802	L803	L804	L805	L806	L807	L808	L809	L810	L811	L812	L813	L814	L815	L816	L817	L818	L819	L820
L821	L822	L823	L824	L825	L826	L827	L828	L829	L830	L831	L832	L833	L834	L835	L836	L837	L838	L839	L840
L841	L842	L843	L844	L845	L846	L847	L848	L849	L850	L851	L852	L853	L854	L855	L856	L857	L858	L859	L860
L861	L862	L863	L864	L865	L866	L867	L868	L869	L870	L871	L872	L873	L874	L875	L876	L877	L878	L879	L880
L881	L882	L883	L884	L885	L886	L887	L888	L889	L890	L891	L892	L893	L894	L895	L896	L897	L898	L899	L900
L901	L902	L903	L904	L905	L906	L907	L908	L909	L910	L911	L912	L913	L914	L915	L916	L917	L918	L919	L920
L921	L922	L923	L924	L925	L926	L927	L928	L929	L930	L931	L932	L933	L934	L935	L936	L937	L938	L939	L940
L941	L942	L943	L944	L945	L946	L947	L948	L949	L950	L951	L952	L953	L954	L955	L956	L957	L958	L959	L960
L961	L962	L963	L964	L965	L966	L967	L968	L969	L970	L971	L972	L973	L974	L975	L976	L977	L978	L979	L980
L981	L982	L983	L984	L985	L986	L987	L988	L989	L990	L991	L992	L993	L994	L995	L996	L997	L998	L999	L1000
L1001	L1002	L1003	L1004	L1005	L1006	L1007	L1008	L1009	L1010	L1011	L1012	L1013	L1014	L1015	L1016	L1017	L1018	L1019	L1020
L1021	L1022	L1023	L1024	L1025	L1026	L1027	L1028	L1029	L1030	L1031	L1032	L1033	L1034	L1035	L1036	L1037	L1038	L1039	L1040
L1041	L1042	L1043	L1044	L1045	L1046	L1047	L1048	L1049	L1050	L1051	L1052	L1053	L1054	L1055	L1056	L1057	L1058	L1059	L1060
L1061	L1062	L1063	L1064	L1065	L1066	L1067	L1068	L1069	L1070	L1071	L1072	L1073	L1074	L1075	L1076	L1077	L1078	L1079	L1080
L1081	L1082	L1083	L1084	L1085	L1086	L1087	L1088	L1089	L1090	L1091	L1092	L1093	L1094	L1095	L1096	L1097	L1098	L1099	L1100
L1101	L1102	L1103	L1104	L1105	L1106	L1107	L1108	L1109	L1110	L1111	L1112	L1113	L1114	L1115	L1116	L1117	L1118	L1119	L1120
L1121	L1122	L1123	L1124	L1125	L1126	L1127	L1128	L1129	L1130	L1131	L1132	L1133	L1134	L1135	L1136	L1137	L1138	L1139	L1140
L1141	L1142	L1143	L1144	L1145	L1146	L1147	L1148	L1149	L1150	L1151	L1152	L1153	L1154	L1155	L1156	L1157	L1158	L1159	L1160
L1161	L1162	L1163	L1164	L1165	L1166	L1167	L1168	L1169	L1170	L1171	L1172	L1173	L1174	L1175	L1176	L1177	L1178	L1179	L1180
L1181	L1182	L1183	L1184	L1185	L1186	L1187	L1188	L1189	L1190	L1191	L1192	L1193	L1194	L1195	L1196	L1197	L1198	L1199	L1200
L1201	L1202	L1203	L1204	L1205	L1206	L1207	L1208	L1209	L1210	L1211	L1212	L1213	L1214	L1215	L1216	L1217	L1218	L1219	L1220
L1221	L1222	L1223	L1224	L1225	L1226	L1227	L1228	L1229	L1230	L1231	L1232	L1233	L1234	L1235	L1236	L1237	L1238	L1239	L1240
L1241	L1242	L1243	L1244	L1245	L1246	L1247	L1248	L1249	L1250	L1251	L1252	L1253	L1254	L1255	L1256	L1257	L1258	L1259	L1260
L1261	L1262	L1263	L1264	L1265	L1266	L1267	L1268	L1269	L1270	L1271	L1272	L1273	L1274	L1275	L1276	L1277	L1278	L1279	L1280
L1281	L1282	L1283	L1284	L1285	L1286	L1287	L1288	L1289	L1290	L1291	L1292	L1293	L1294	L1295	L1296	L1297	L1298	L1299	L1300
L1301	L1302	L1303	L1304	L1305	L1306	L1307	L1308	L1309	L1310	L1311	L1312	L1313	L1314	L1315	L1316	L1317	L1318	L1319	L1320
L1321	L1322	L1323	L1324	L1325	L1326	L1327	L1328	L1329	L1330	L1331	L1332	L1333	L1334	L1335	L1336	L1337	L1338	L1339	L1340
L1341	L1342	L1343	L1344	L1345	L1346	L1347	L1348	L1349	L1350	L1351	L1352	L1353	L1354	L1355	L1356	L1357	L1358	L1359	L1360
L1361	L1362	L1363	L1364	L1365	L1366	L1367	L1368	L1369	L1370	L1371	L1372	L1373	L1374	L1375	L1376	L1377	L1378	L1379	L1380
L1381	L1382	L1383	L1384	L1385	L1386	L1387	L1388	L1389	L1390	L1391	L1392	L1393	L1394	L1395	L1396	L1397	L1398	L1399	L1400
L1401	L1402	L1403	L1404	L1405	L1406	L1407	L1408	L1409	L1410	L1411	L1412	L1413	L1414	L1415	L1416	L1417	L1418	L1419	L1420
L1421	L1422	L1423	L1424	L1425	L1426	L1427	L1428	L1429	L1430	L1431	L1432	L1433	L1434	L1435	L1436	L1437	L1438	L1439	L1440
L1441	L1442	L1443	L1444	L1445	L1446														

Light Chain

Heavy Chain

FIG. 6H

	(1)	1	10	20	30	40	50	60	70	85	
SC57.43 VH	(1)	EVKLVERGGG	VOFGCLLS	LSCAASGFTFR	SYINR	SVKQTPEKRLNRY	KLNGCVYVYVYQDTYK	PTTIERDNKNTLYLQMS			Section 1
hSC57.43 VH	(1)	CVQLVERGGG	VOFGRLSL	LSCAASGFTFR	SYINR	SVKCAFGKLEWYV	KLNGCVYVYVYQDTYK	PTTIERDNKNTLYLQMS			
	(96)	86	100	117							Section 2
SC57.43 VH	(86)	LEKEDTRVYICAR	YQWYVFDV	RSQGTIVVES							
hSC57.43 VH	(86)	LEKEDTRVYICAR	YQWYVFDV	RSQGTIVVES							

MFI2 Protein Expression in PDX Tumor Cell Lines

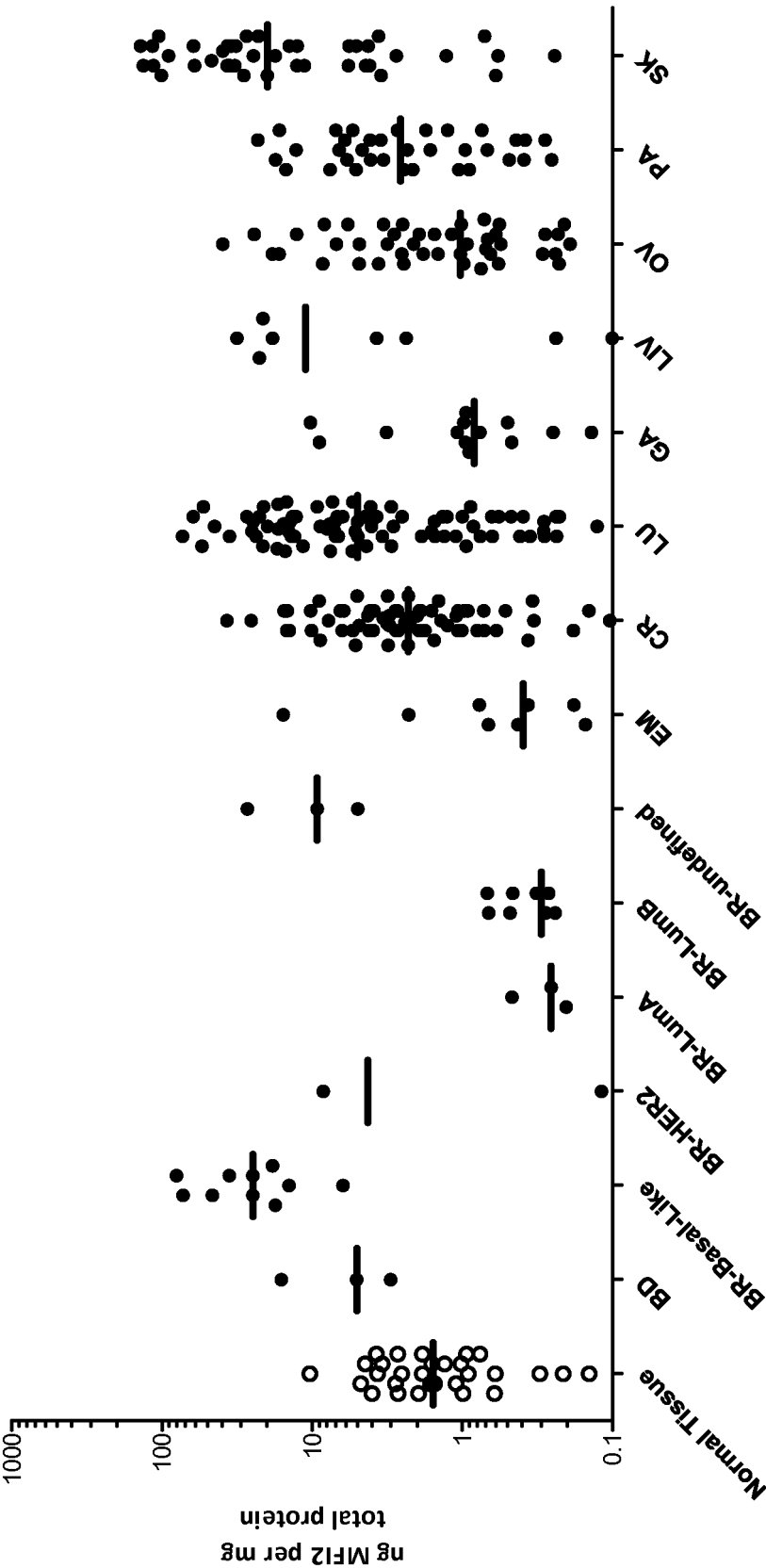


FIG. 7

Anti-MFI2 Antibodies Detect MFI2 Protein on PDX Tumors by Immunohistochemistry

Annotation Name	H-Score For Membrane Staining
BR13	85
BR133	150
BR134	135
BR144	24
BR145	0
BR22	10
BR25	35
BR31	150
BR5	0
BR56	60
BR64	2
BR86	35
LU104	0
LU120	0
LU123	2
LU134	0
LU187	0
LU205	4
LU206	0
LU58	0
LU92	0
SK11	2
SK19	0
SK3	110
SK30	0
SK40	140
SK43	0
SK44	106
SK46	185
SK55	14
SK67	160
SK70	0
SK79	0

FIG. 8A

**Anti-MFI2 Antibodies Detect MFI2 protein on Human
Melanoma, Breast and Lung Cancer Samples by
Immunohistochemistry**

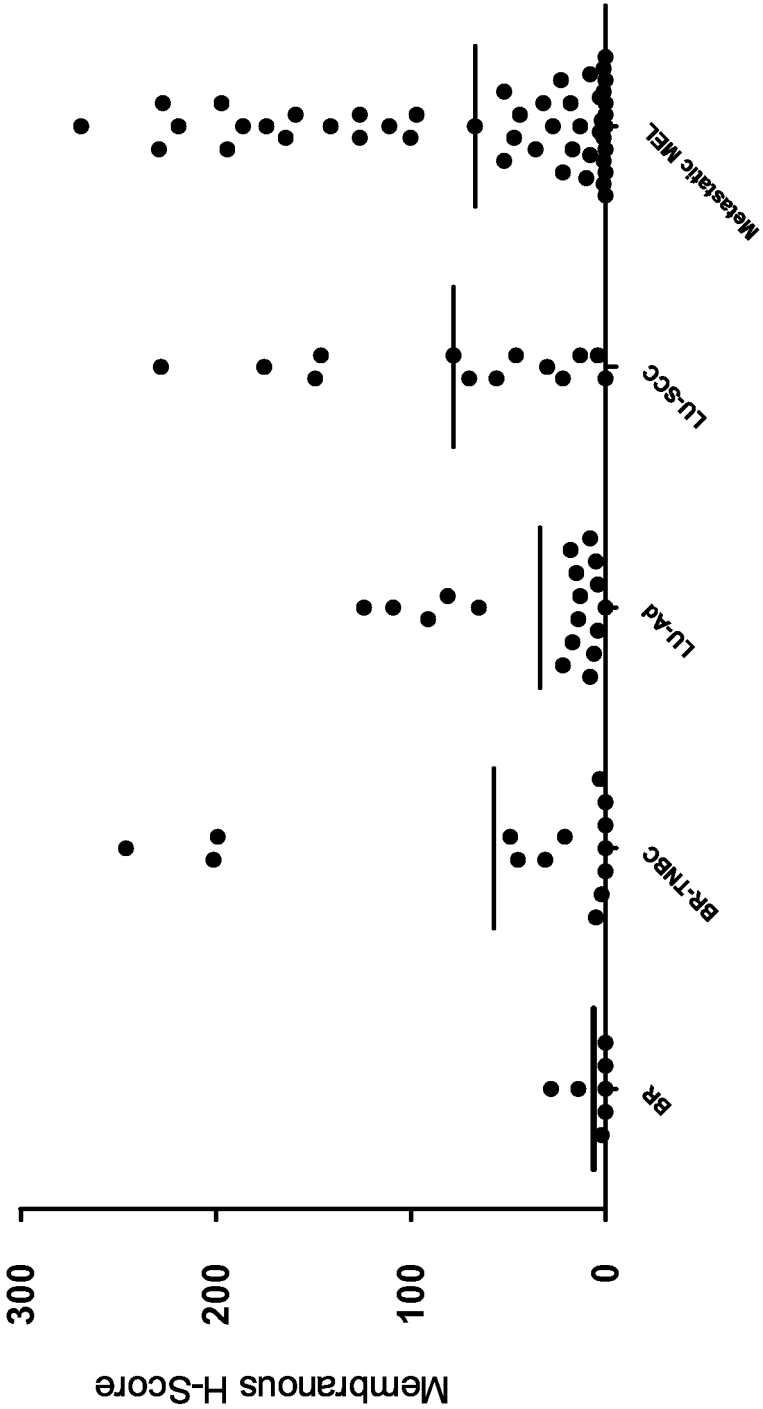


FIG. 8B

Anti-MFI2 Antibodies Detect Surface Expression of MFI2 Protein on Skin PDX Tumor Cells by Flow Cytometry

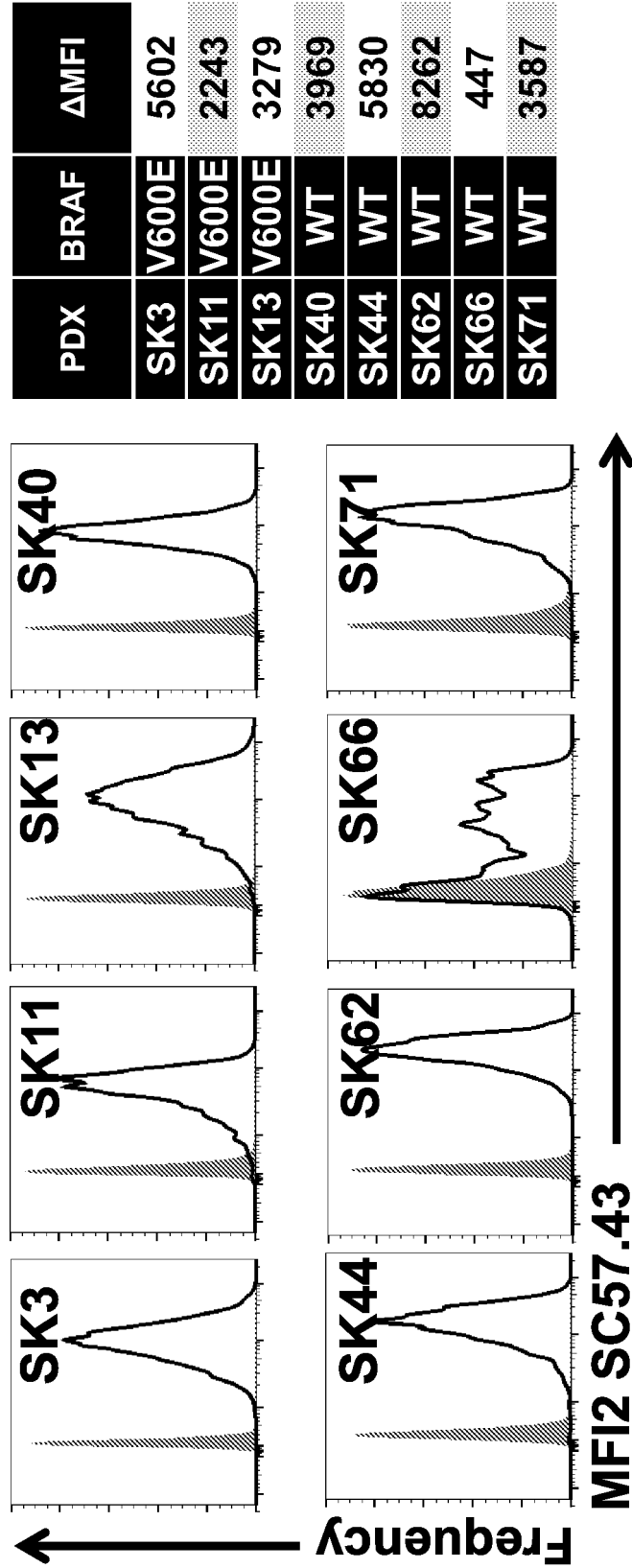
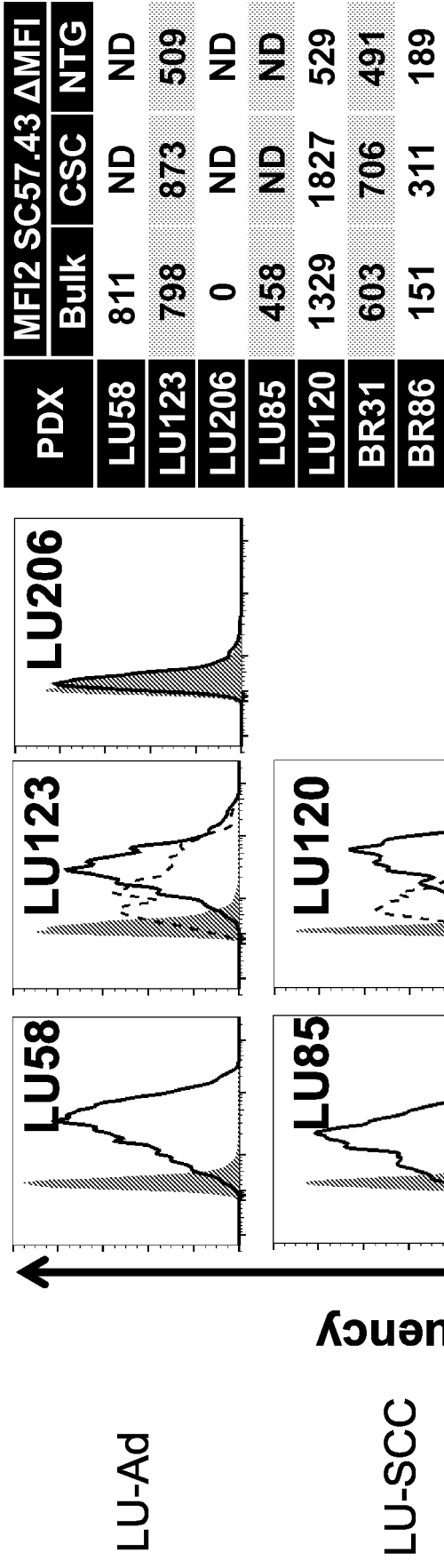


FIG. 9A

Anti-MFI2 Antibodies Detect Surface Expression of MFI2 Protein on Lung and Breast PDX Tumor Cells by Flow

Cytometry



ND – not determined

MFI2 SC57.43

FIG. 9B

Anti-MFI2 Antibody-Saporin Conjugates Kill HEK293T Cells Overexpressing hMFI2 Protein

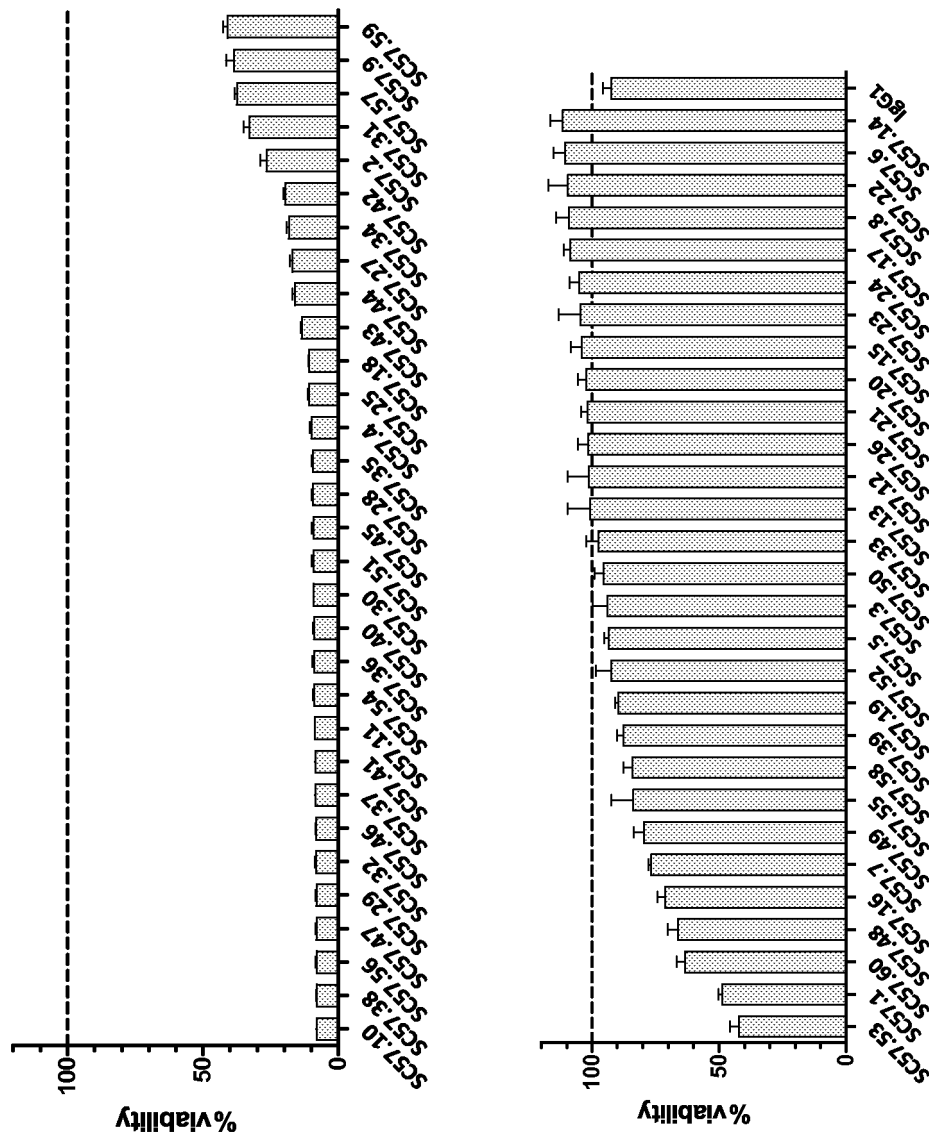


FIG. 10A

Anti-MFI2 Antibody-Saporin Conjugates Kill Melanoma PDX Tumors

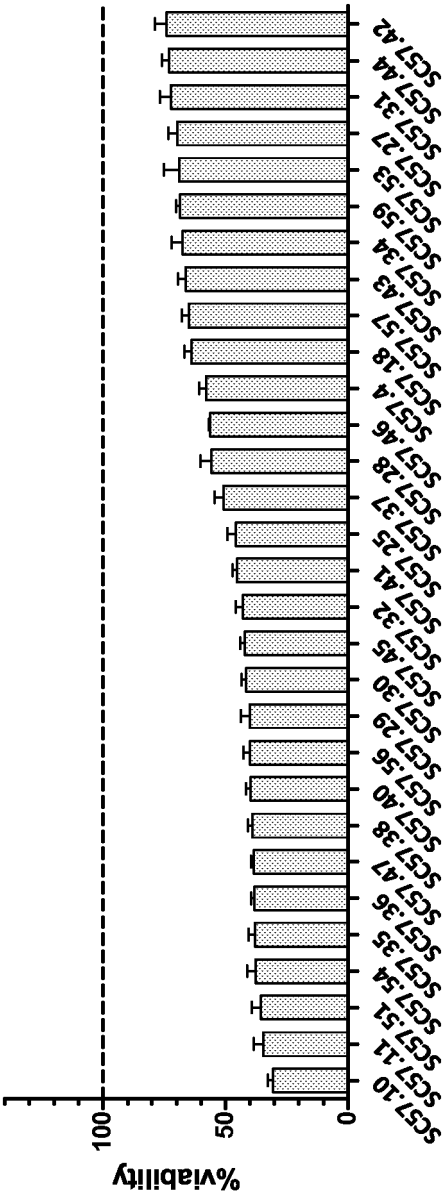
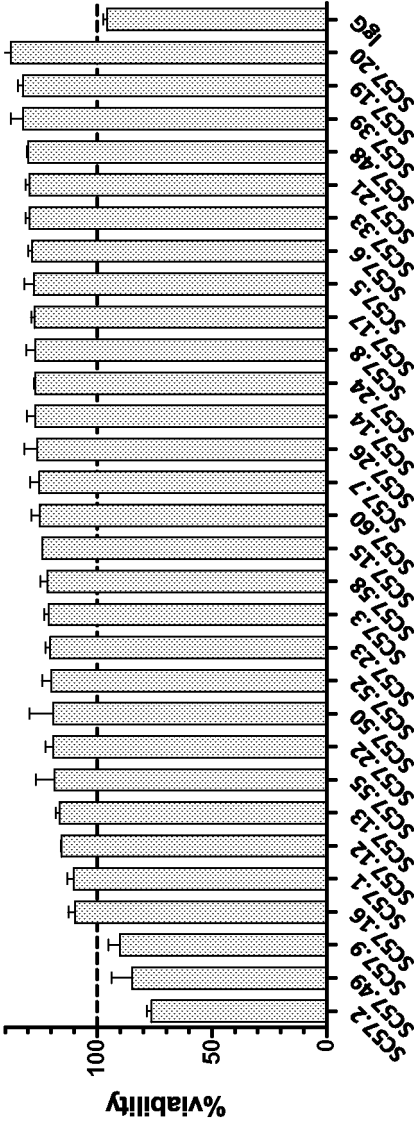


FIG. 10B

Humanized Anti-MFI2 Clones SC57.32 and SC57.43 Saporin Conjugates Kill HEK293T Cells Overexpressing hMFI2 Protein

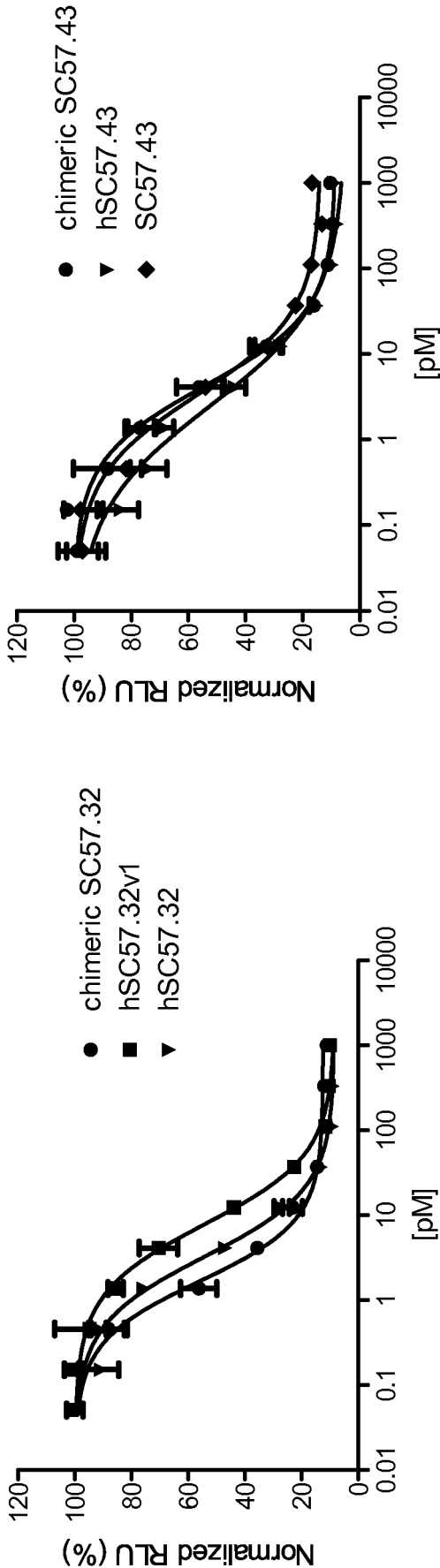


FIG. 10C

Correlation Between Anti-MF12 Killing and Antibody Bins

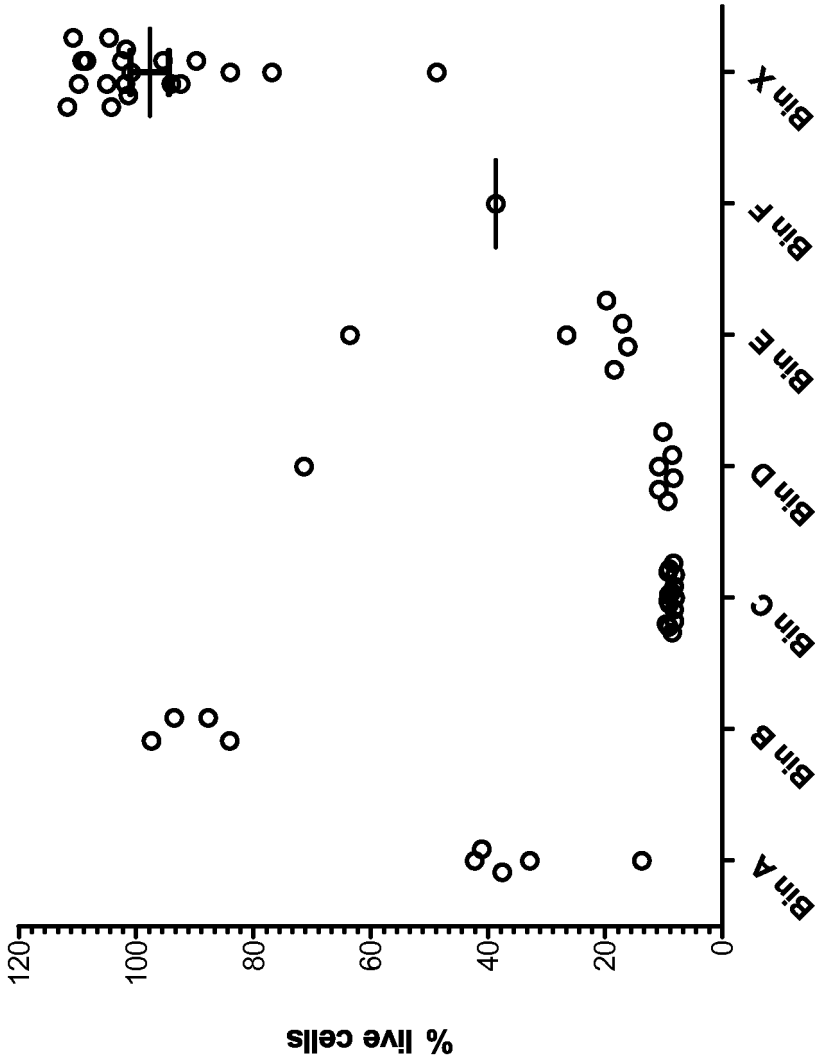


FIG. 10D

Humanized Anti-MFI2 ADCs Kill HEK293T Cells Expressing hMFI2 Protein and SK-MEL-28 Melanoma Cells Expressing Endogenous hMFI2

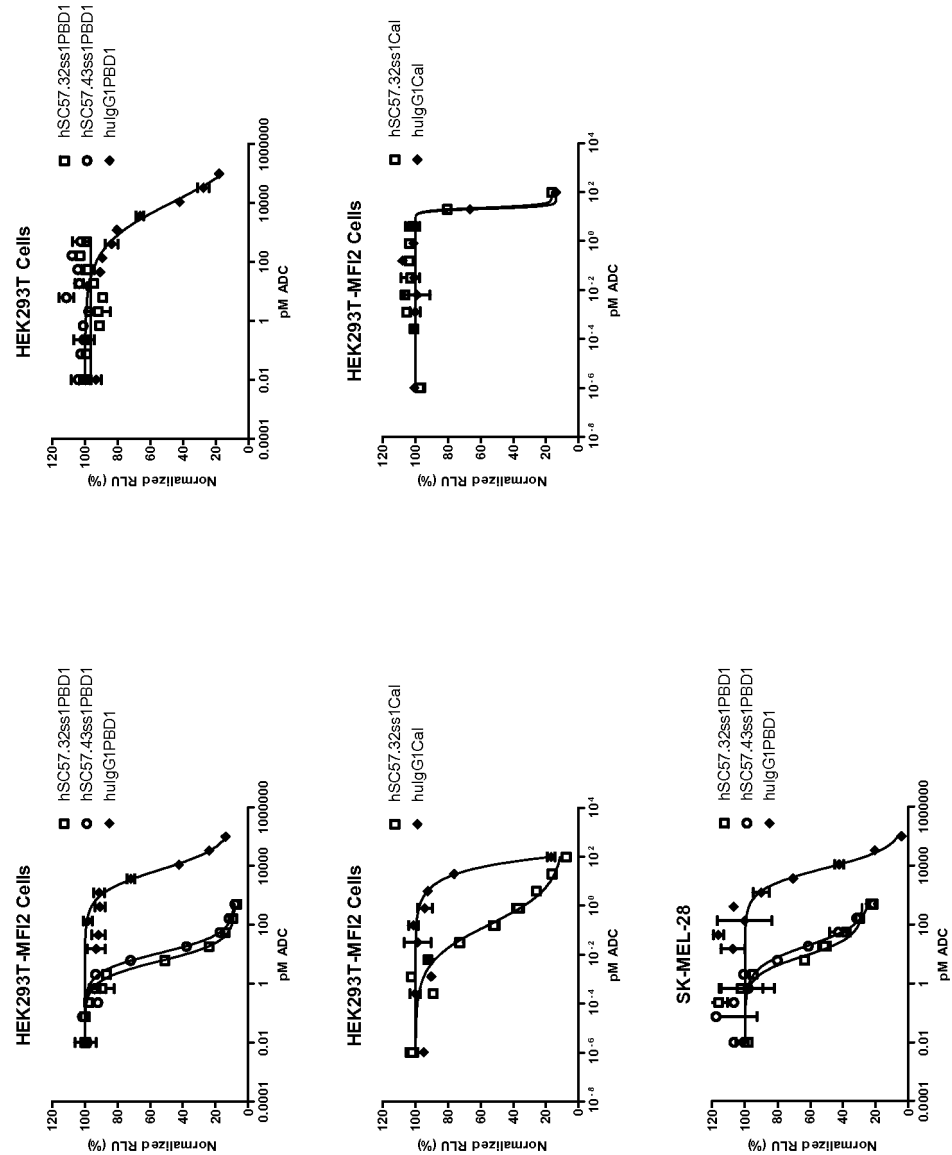


FIG. 11A

Humanized Anti-MFI2 ADC

hSC57.32ss1PBD1 Kill Breast Cancer and Melanoma Cells Endogenously Expressing hMFI2

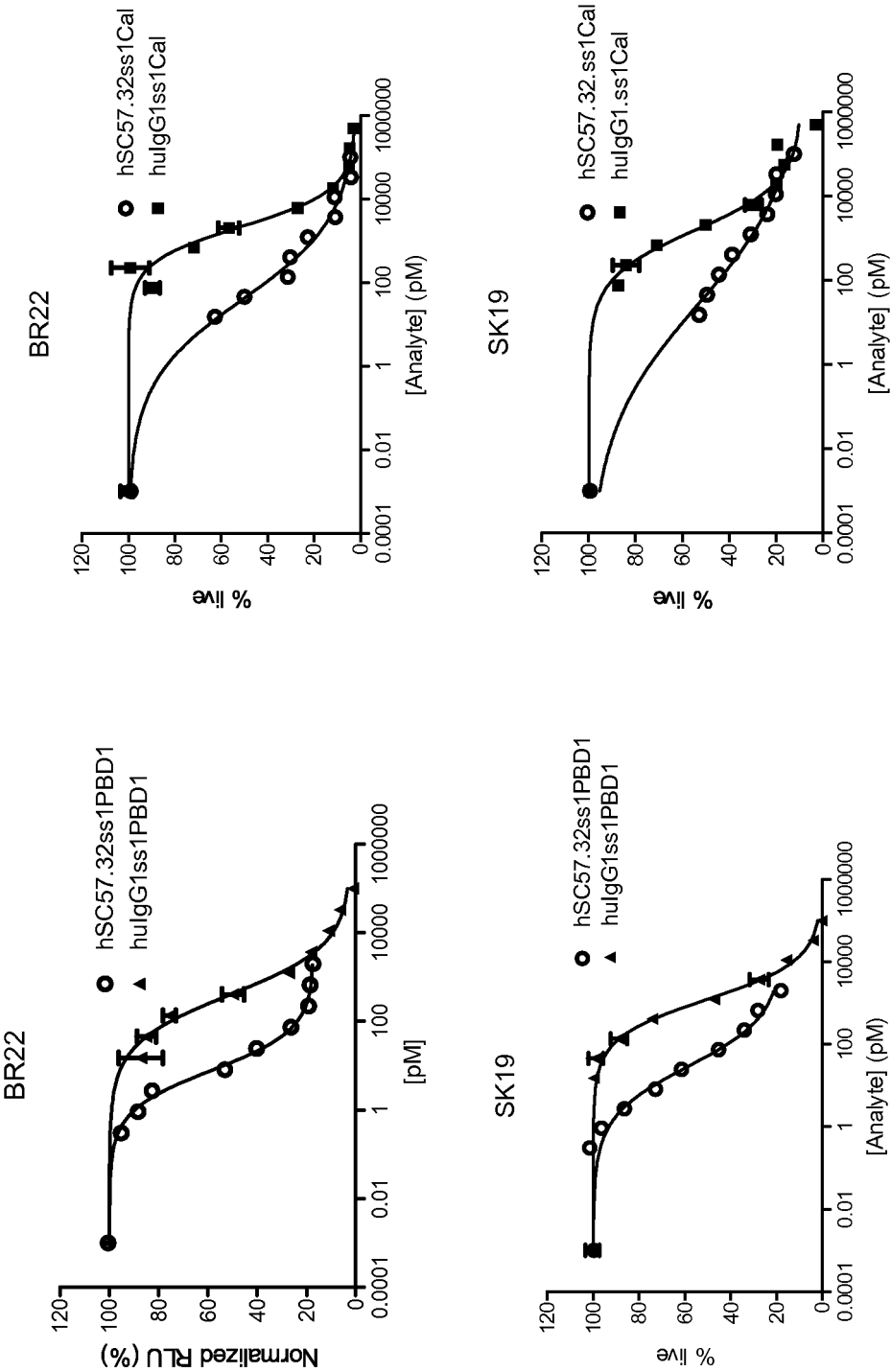


FIG. 11B

Humanized Anti-MFI2 ADC SC57.32ss1PBDD1Reduce Tumor Volume in Breast PDX Tumors *In Vivo*

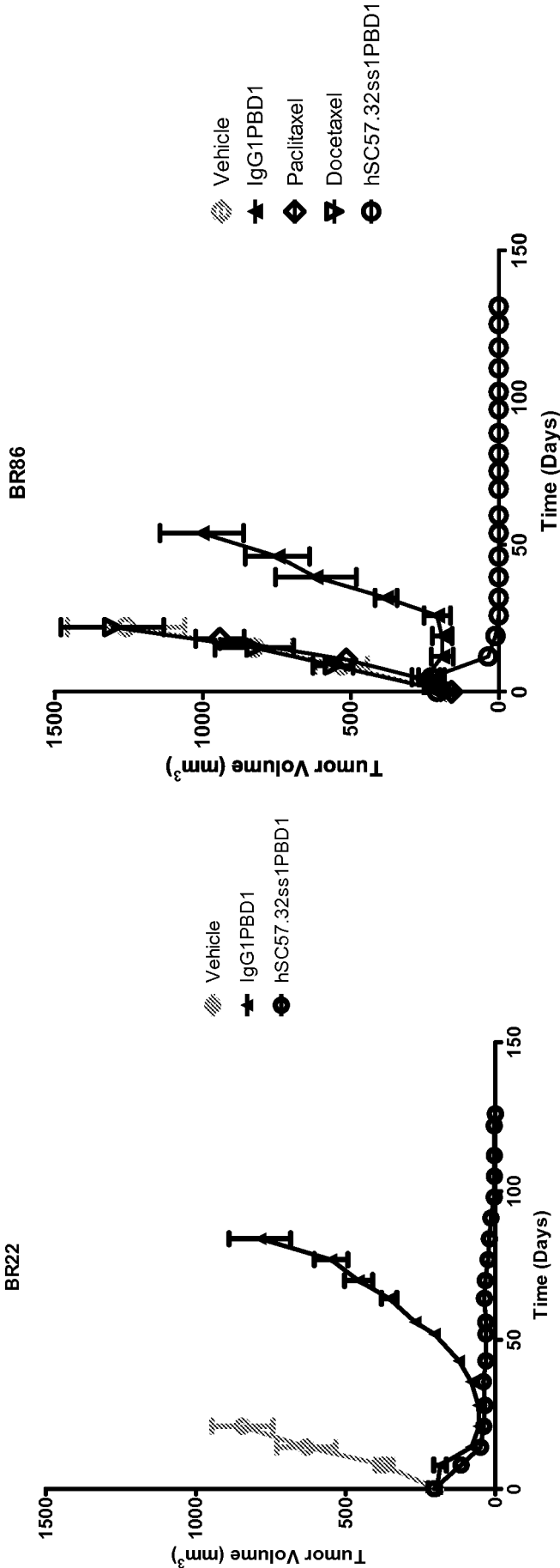


FIG. 12A

Anti-MFI2 ADCs Reduce Tumor Volume in Lung Cancer and Melanoma PDX Tumors *In Vivo*

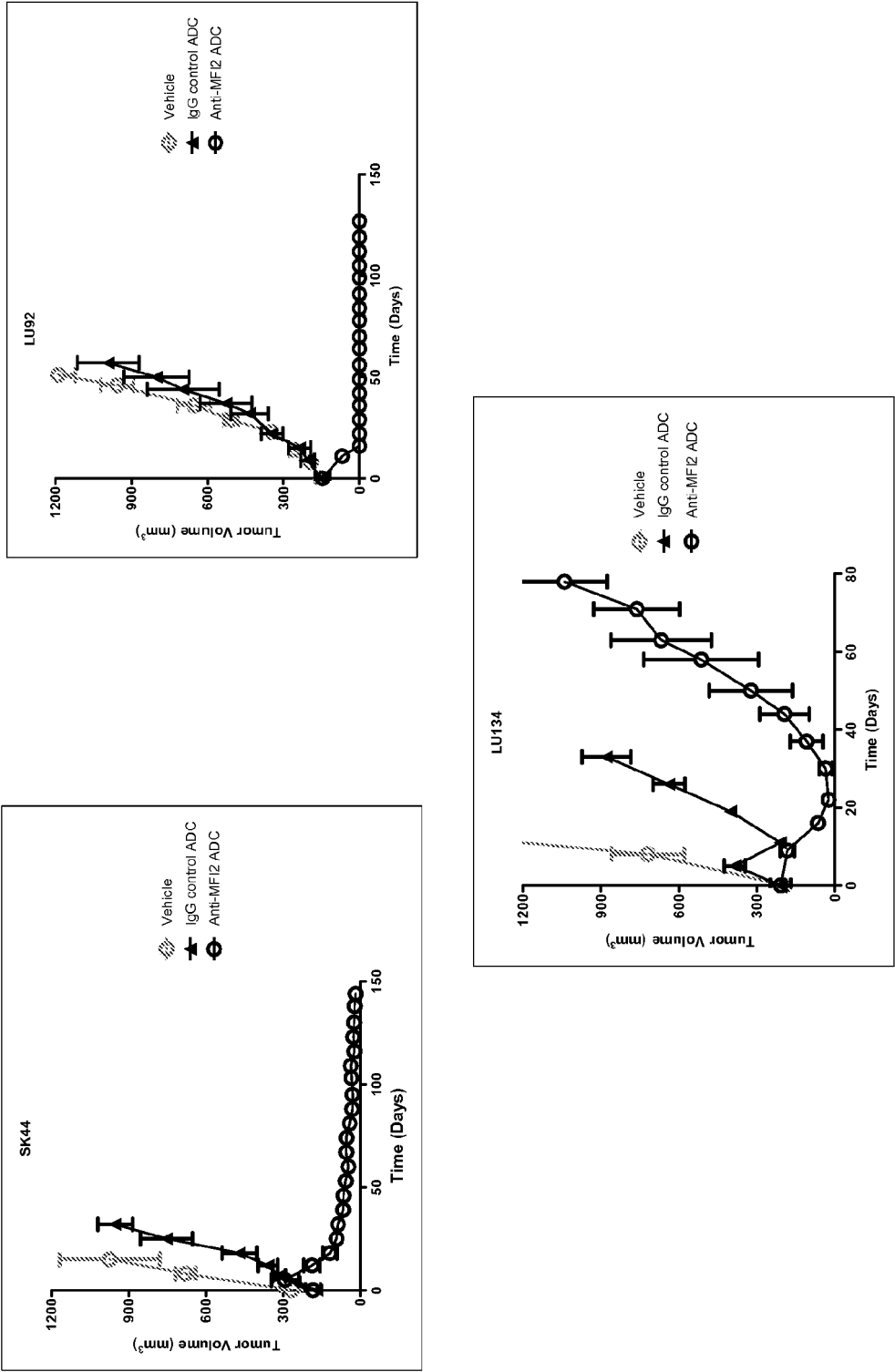


FIG. 12B

MFI2 is Associated with Tumor Initiating Cells in Melanoma

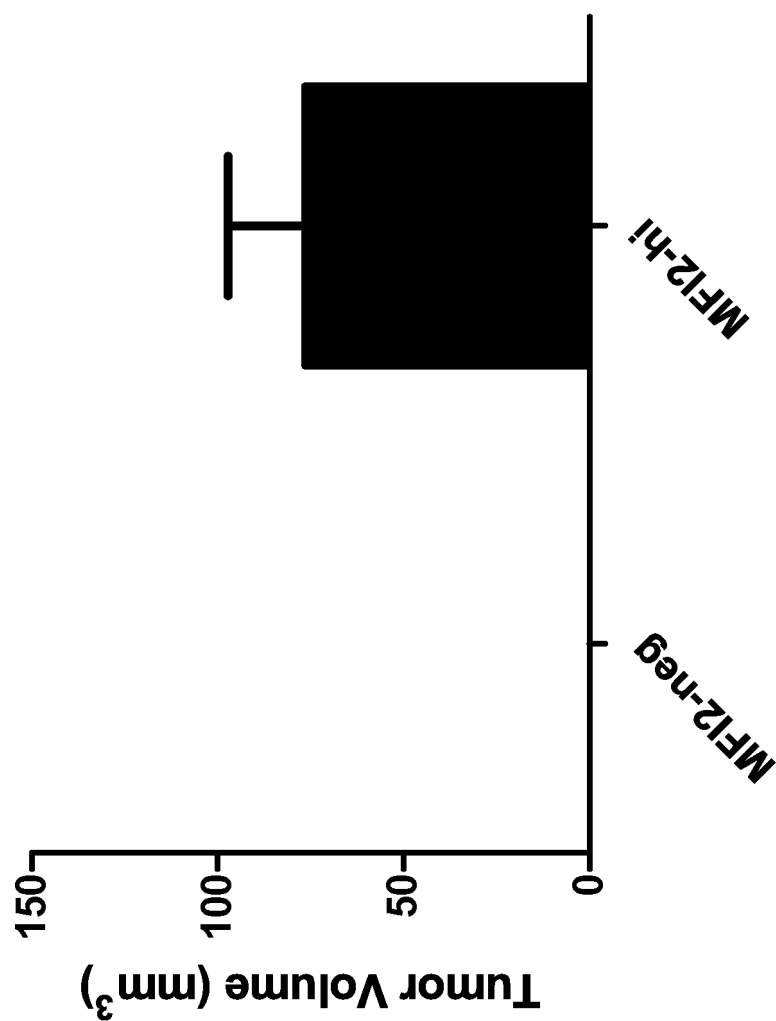


FIG. 13