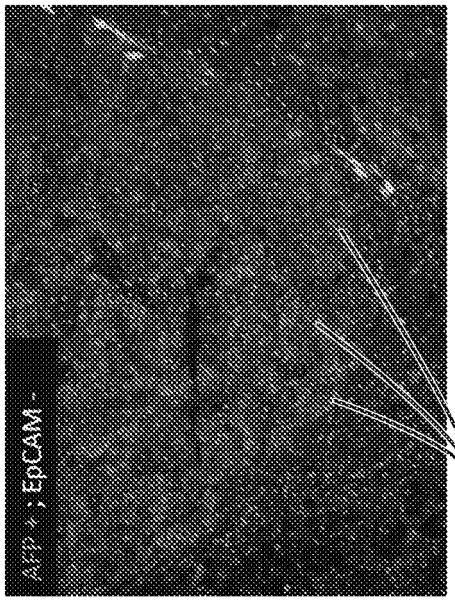


FIG. 1A



FIG. 1B



FIG. 1C

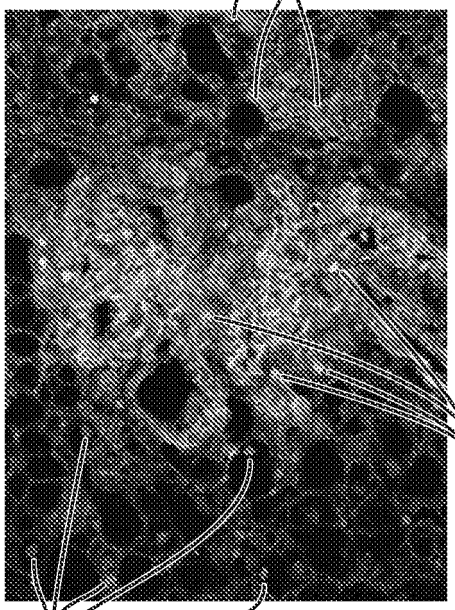


FIG. 1F

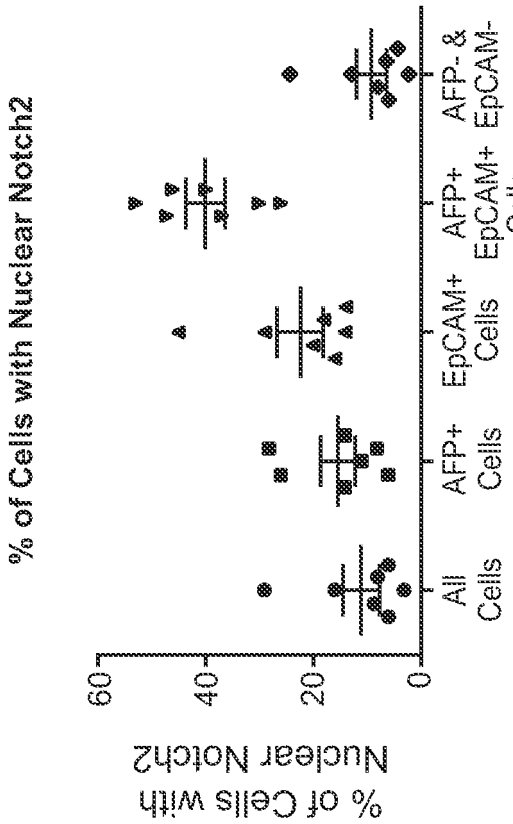

% of Cells with Nuclear Notch2
% of Cells with Nuclear Notch2
60
40
20
0
All Cells
AFP+ Cells
EpCAM+ Cells
AFP+ EpCAM+ Cells
AFP- & EpCAM- Cells

FIG. 1E

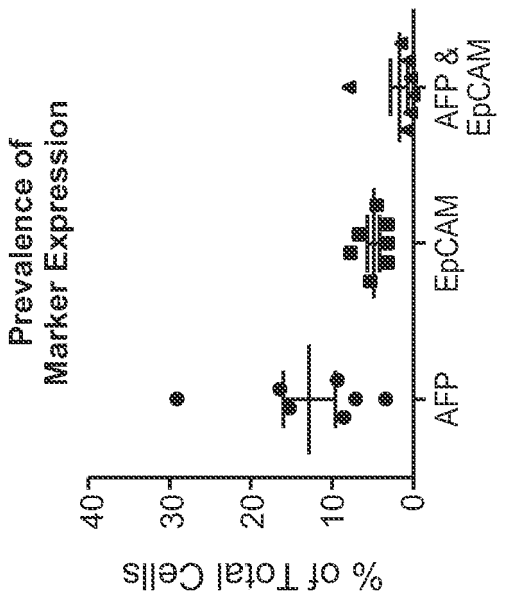

Prevalence of Marker Expression
% of Total Cells
40
30
20
10
0
AFP
EpCAM
AFP & EpCAM

FIG. 1D

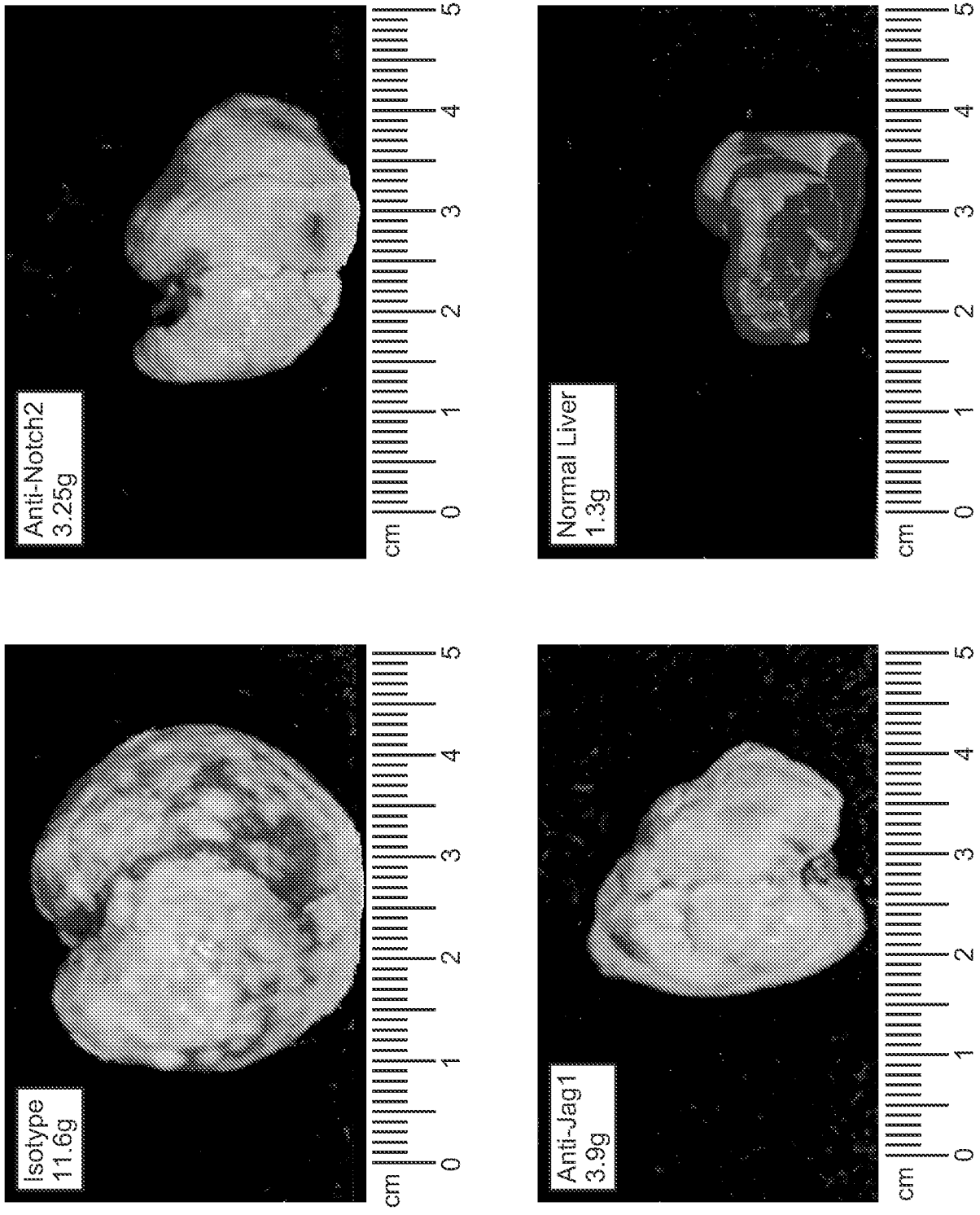

Anti-Notch2
3.25g
Normal Liver
1.3g
Isotype
11.6g
Anti-Jag1
3.9g
cm
0
1
2
3
4
5

FIG. 2A

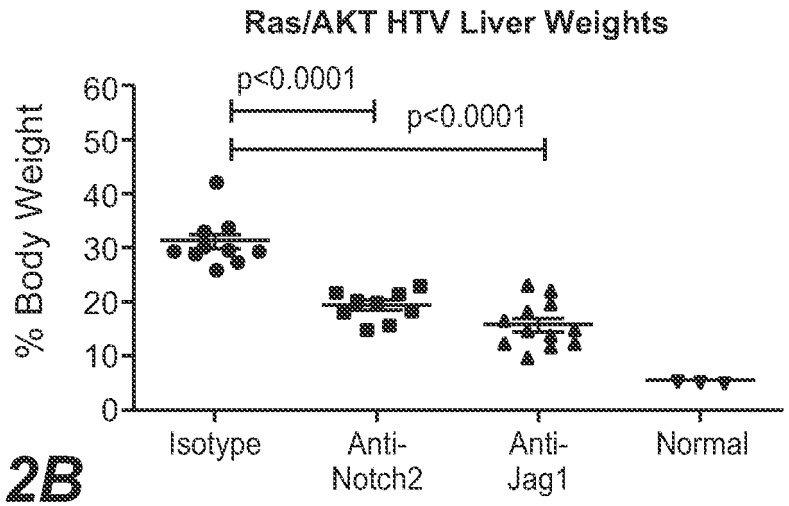


FIG. 2B

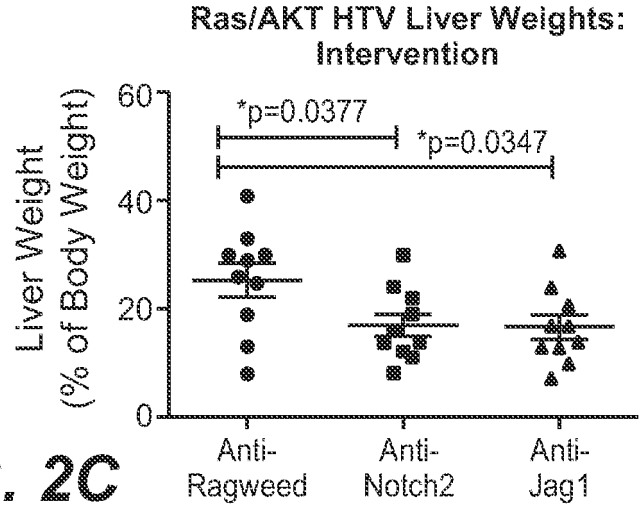


FIG. 2C

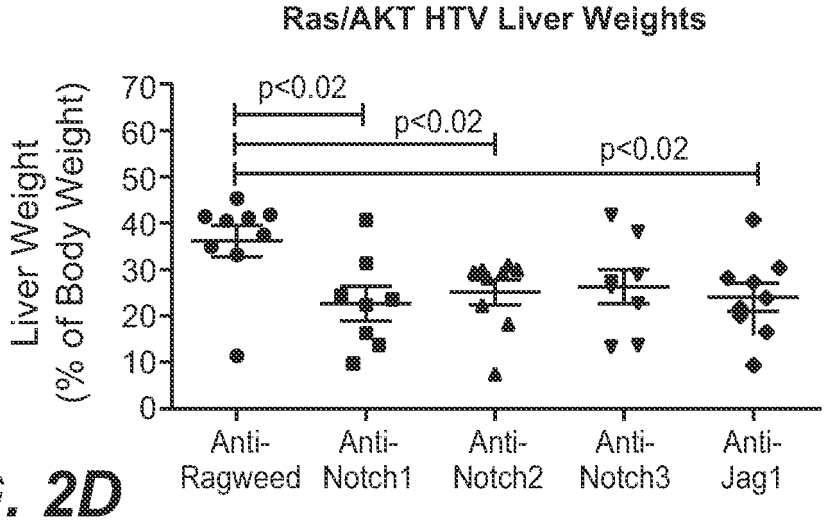


FIG. 2D

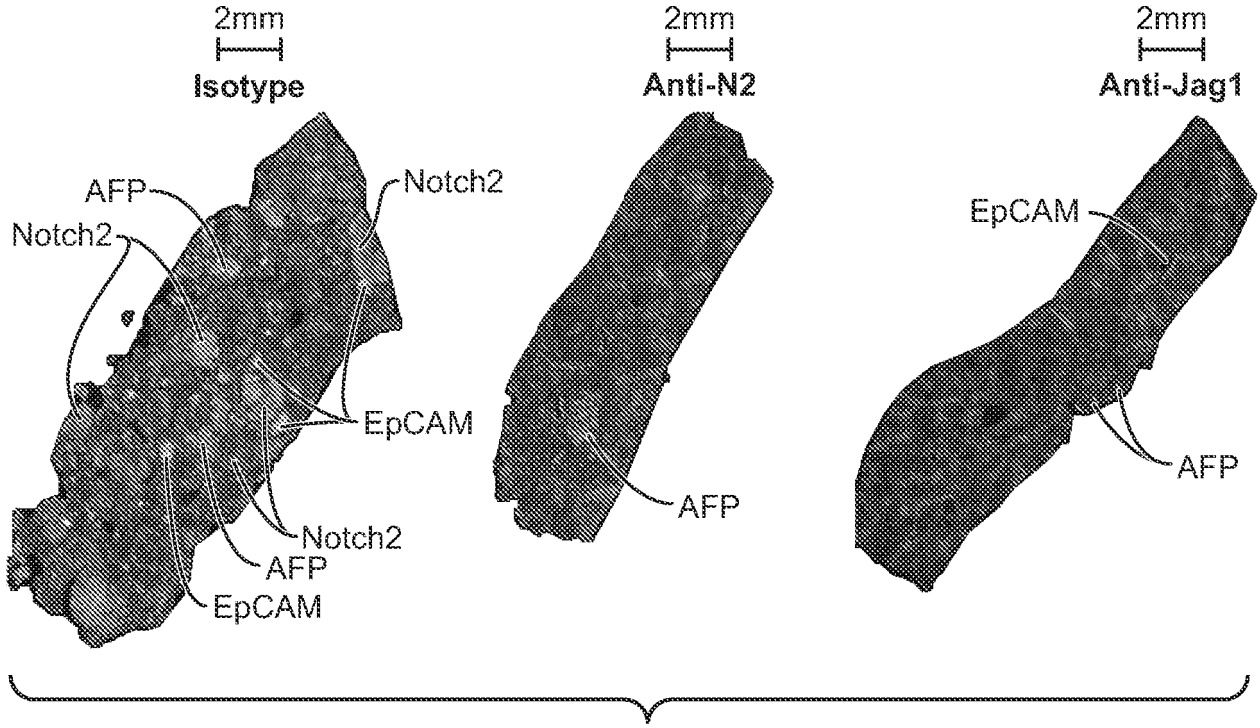

2mm
Isotype
AFP
Notch2
Notch2
EpCAM
Notch2
AFP
EpCAM
2mm
Anti-N2
AFP
2mm
Anti-Jag1
EpCAM
AFP

FIG. 3A

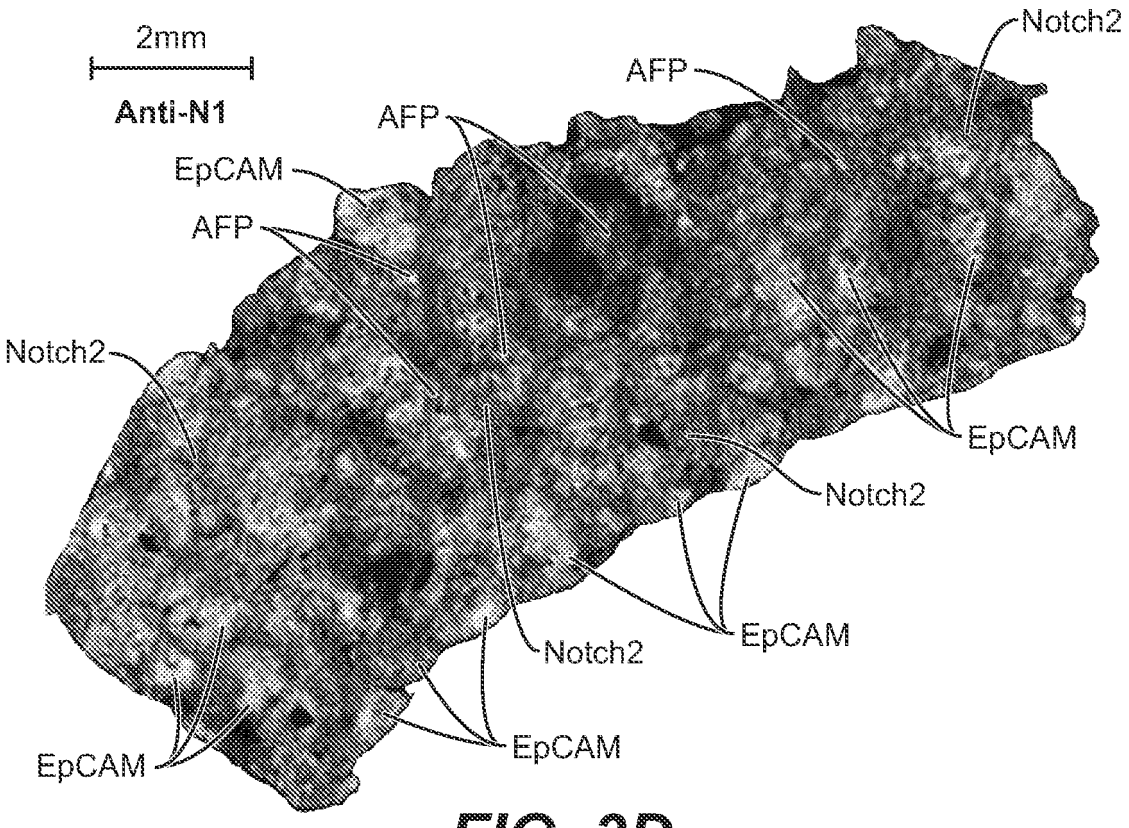

2mm
Anti-N1
Notch2
AFP
AFP
EpCAM
AFP
Notch2
EpCAM
Notch2
EpCAM
Notch2
EpCAM
EpCAM

FIG. 3D

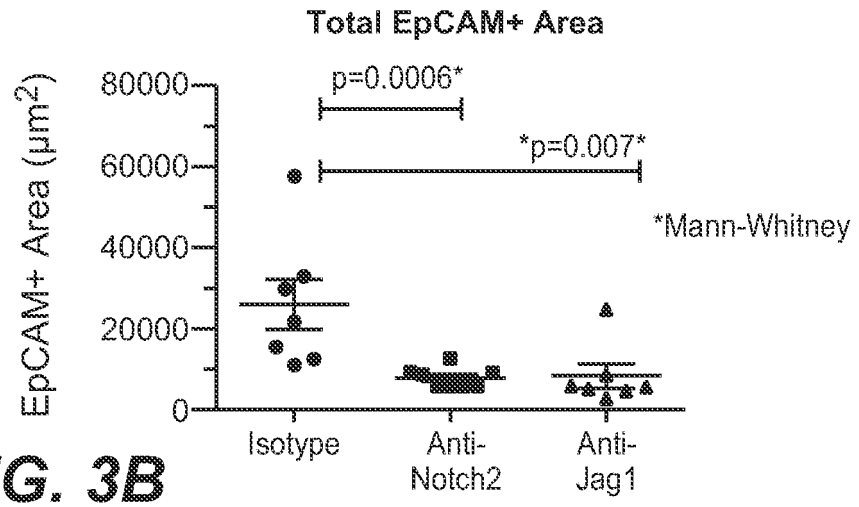


FIG. 3B

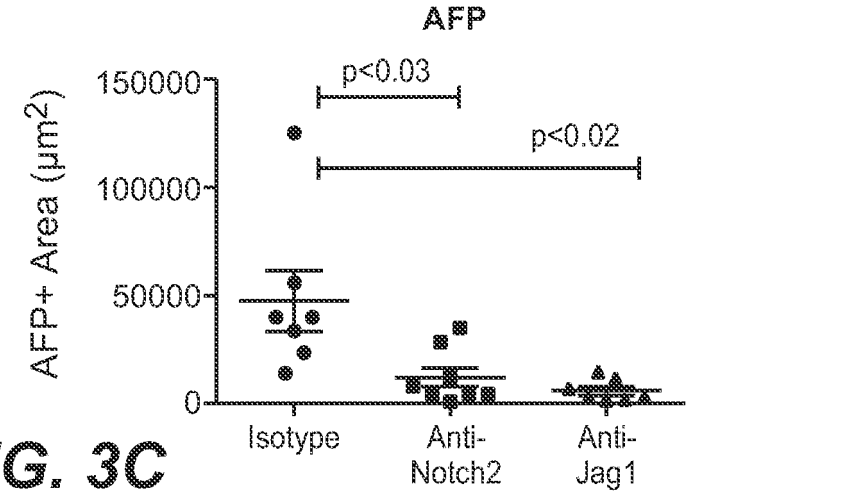


FIG. 3C

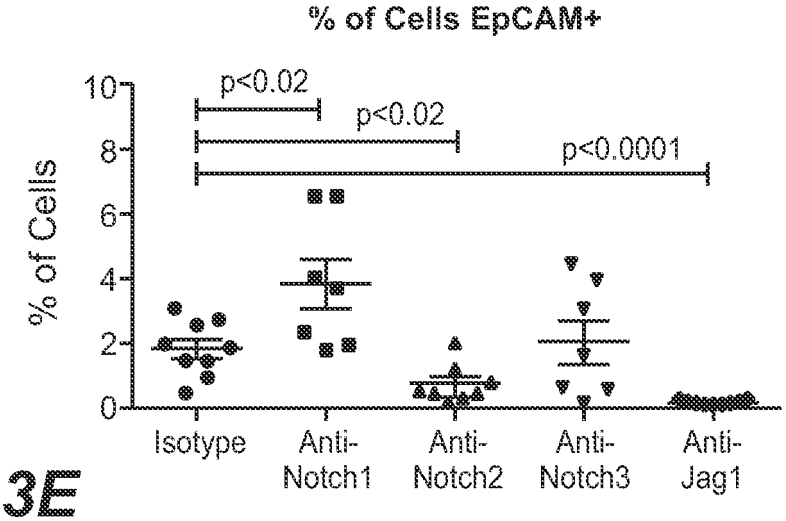


FIG. 3E

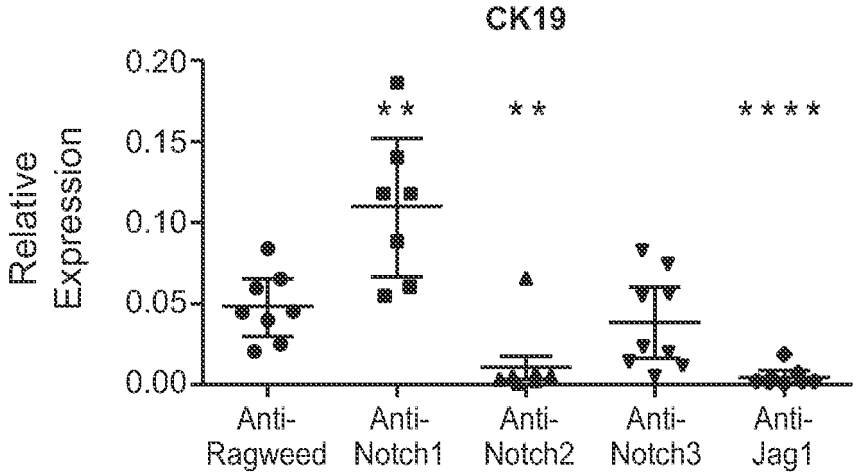


FIG. 3F

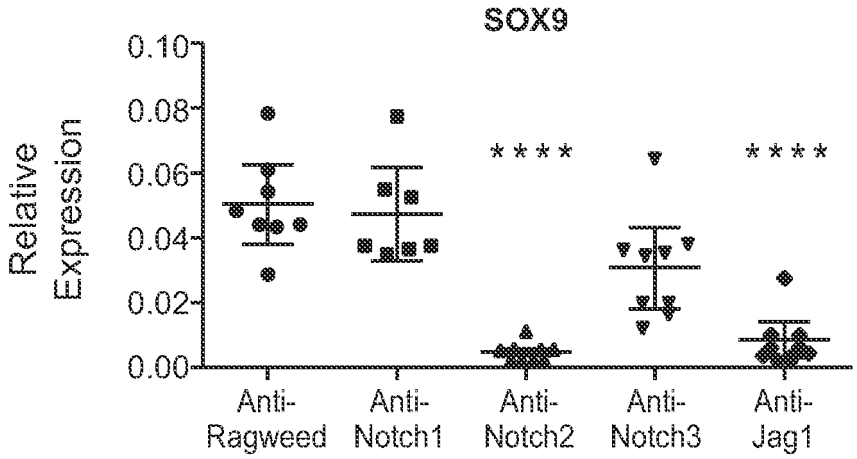


FIG. 3G

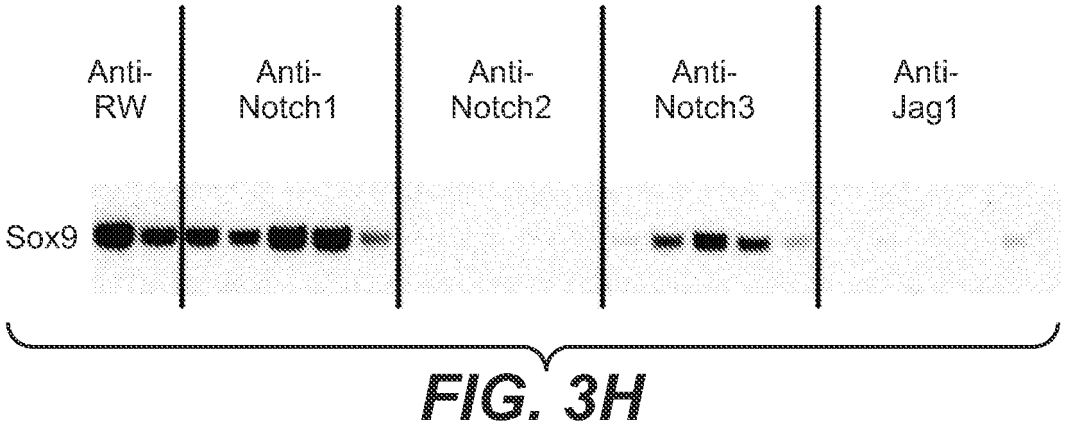


FIG. 3H

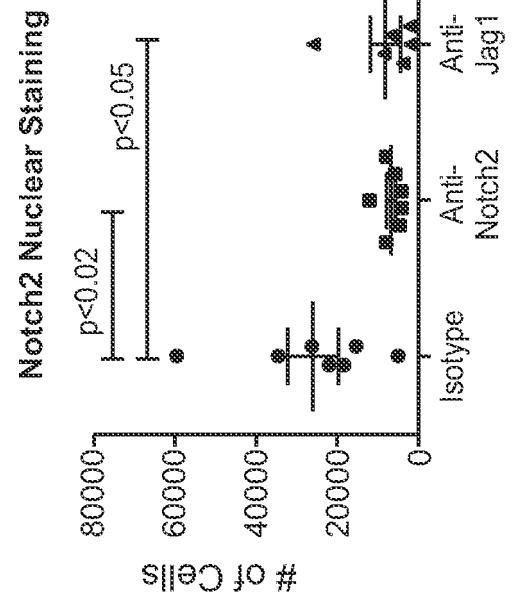


FIG. 4A



FIG. 4B

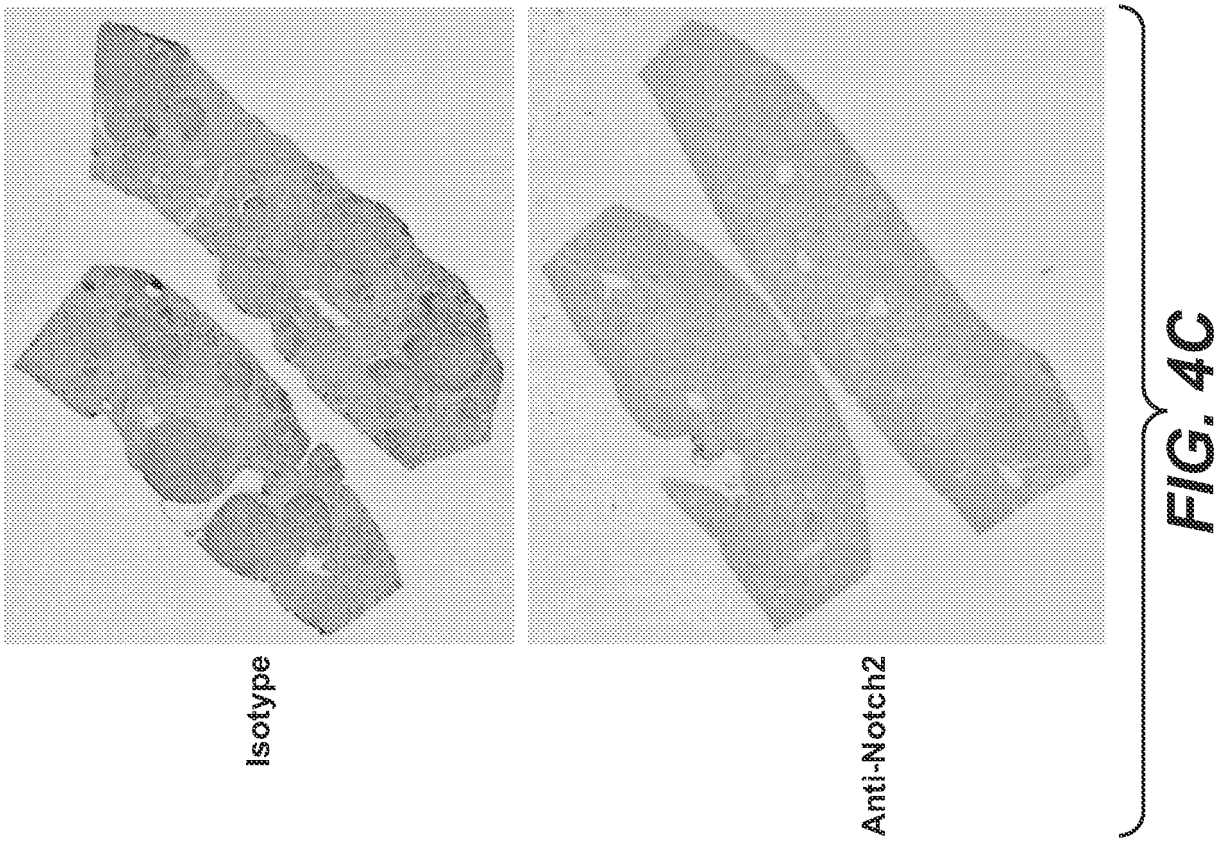


FIG. 4C

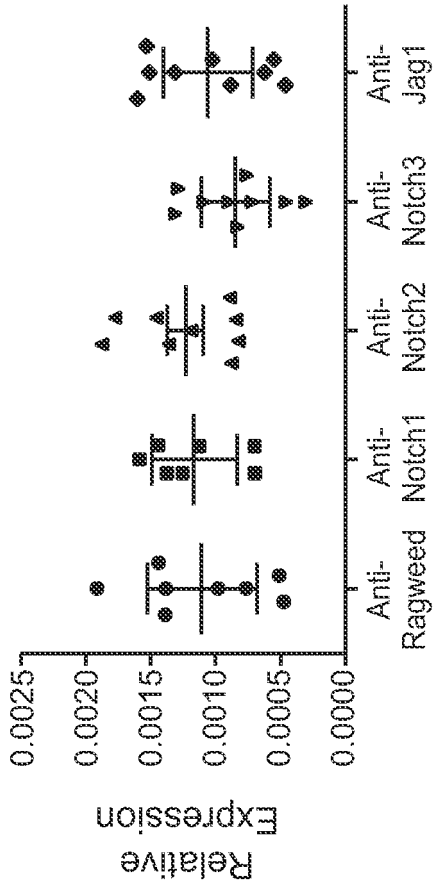


FIG. 5A

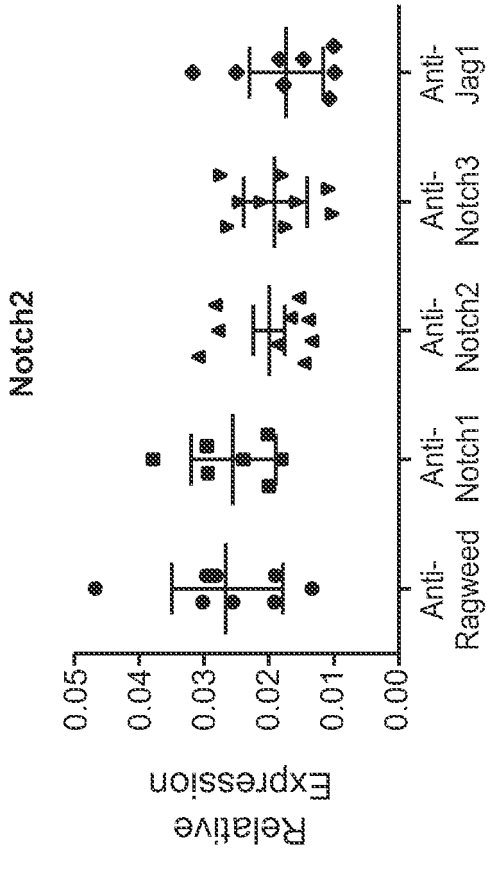


FIG. 5B

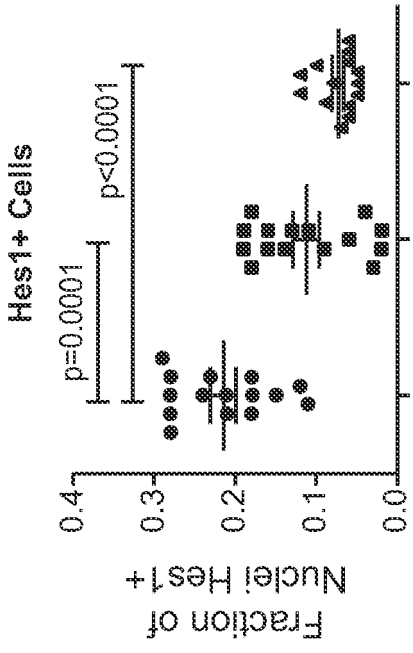


FIG. 4D

FIG. 4E

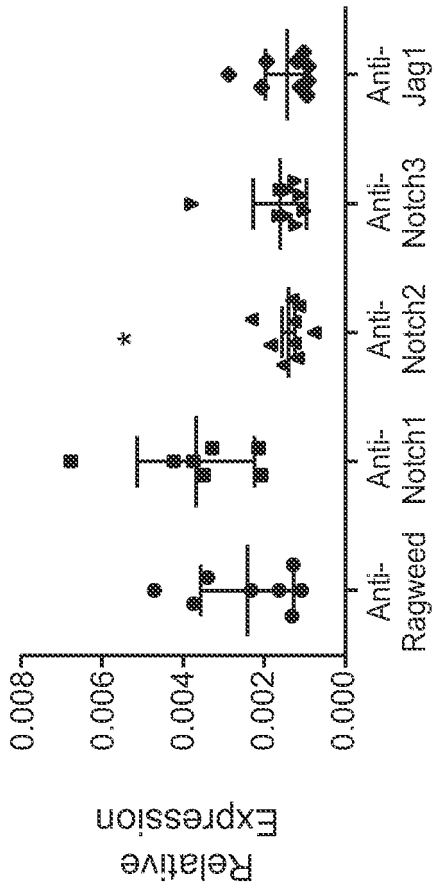


FIG. 5D

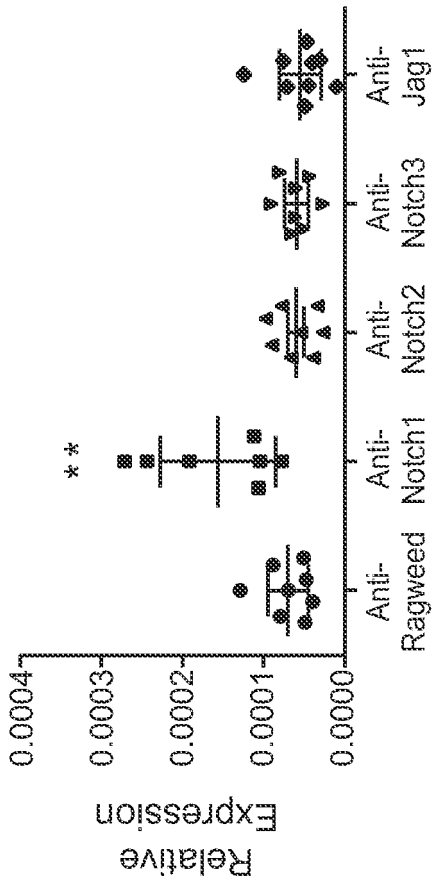


FIG. 5F

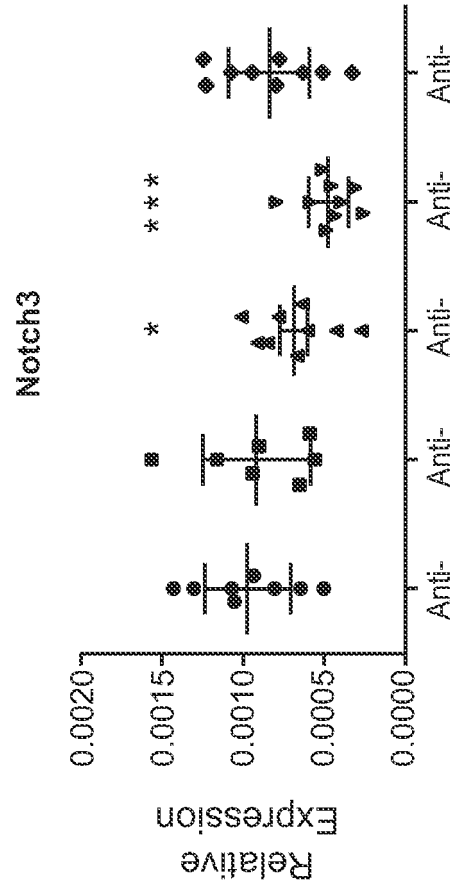


FIG. 5C

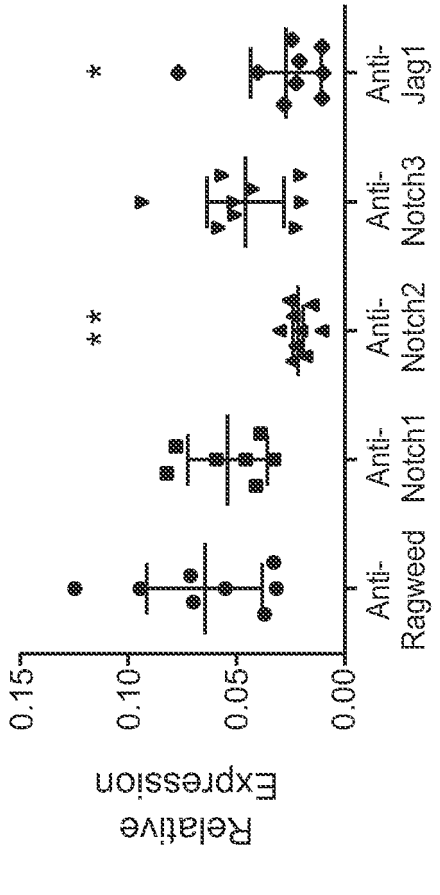


FIG. 5E

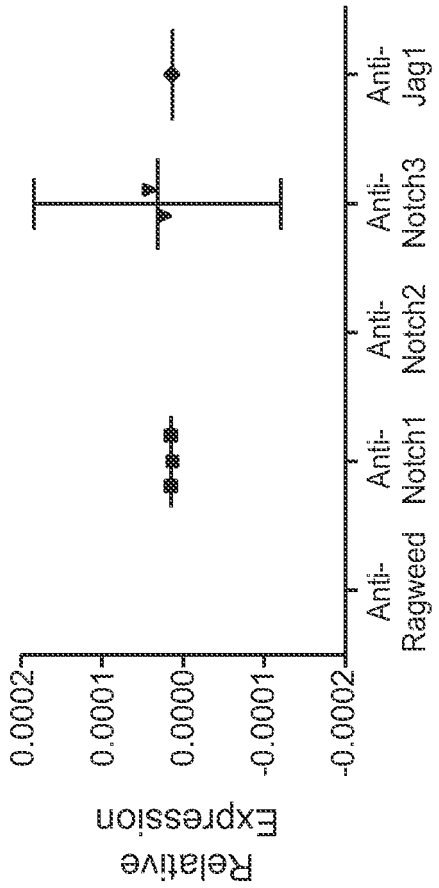


FIG. 5H

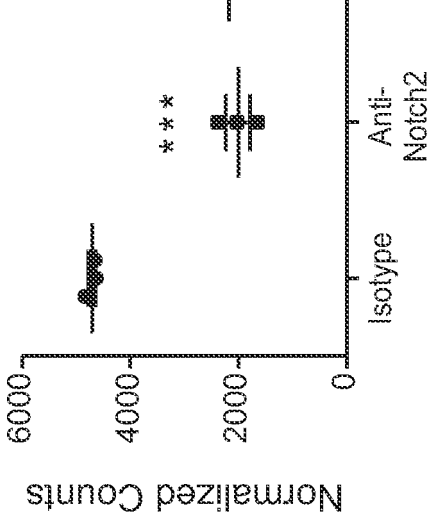


FIG. 6A

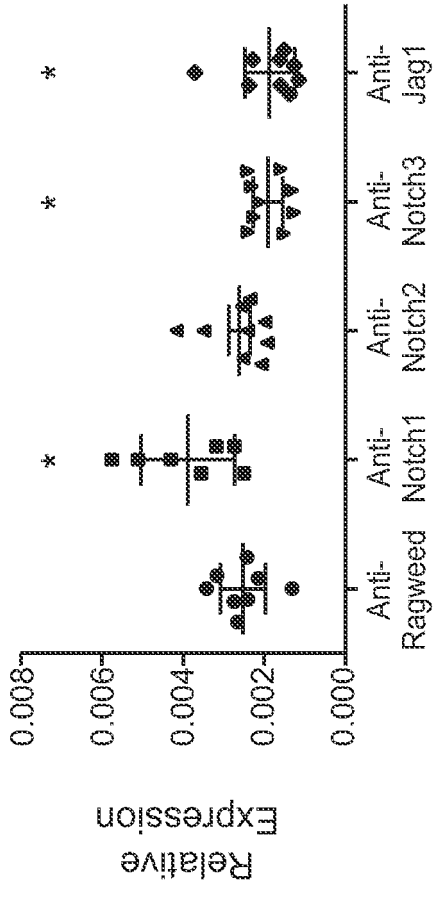


FIG. 5G

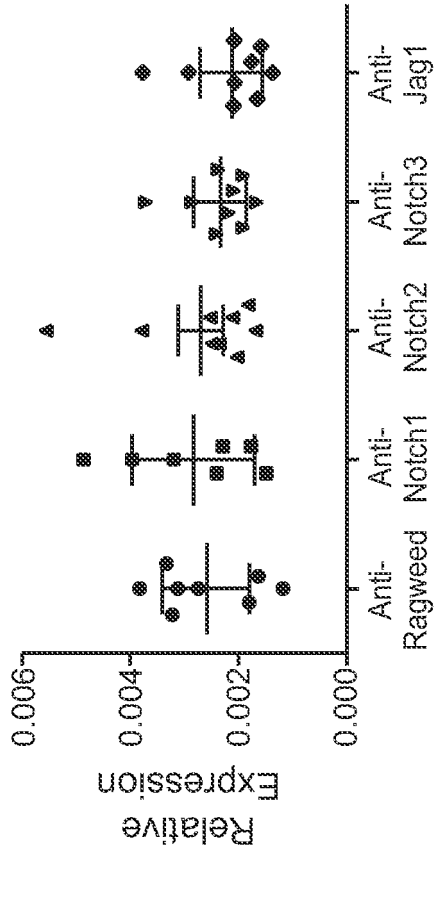


FIG. 5I

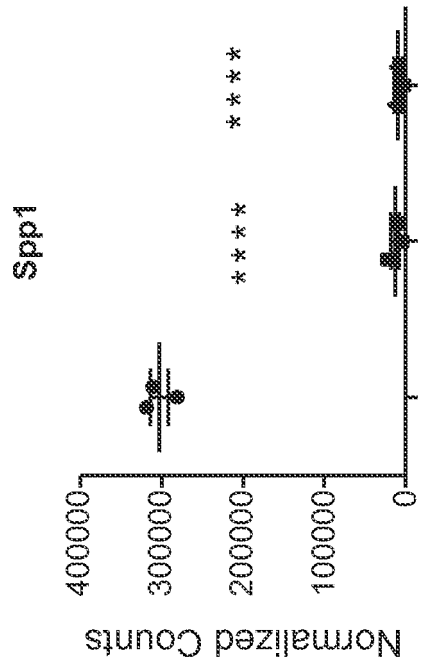


FIG. 6B

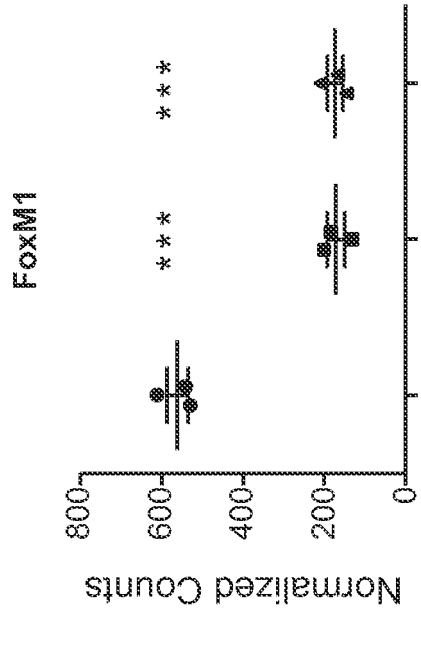


FIG. 6C

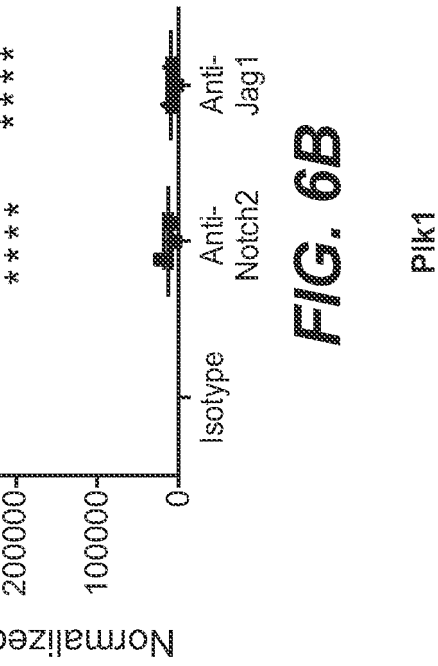


FIG. 6D

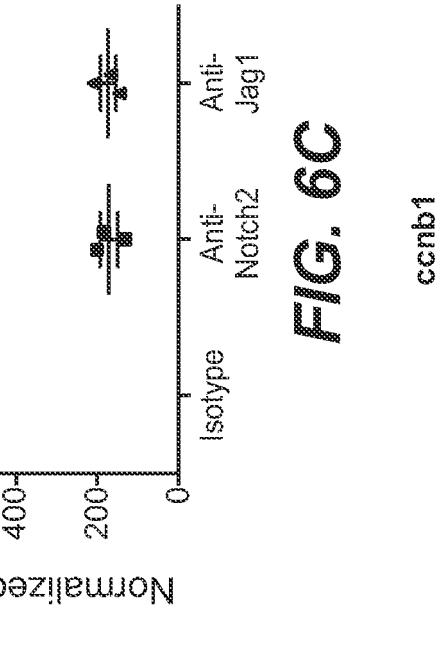


FIG. 6E

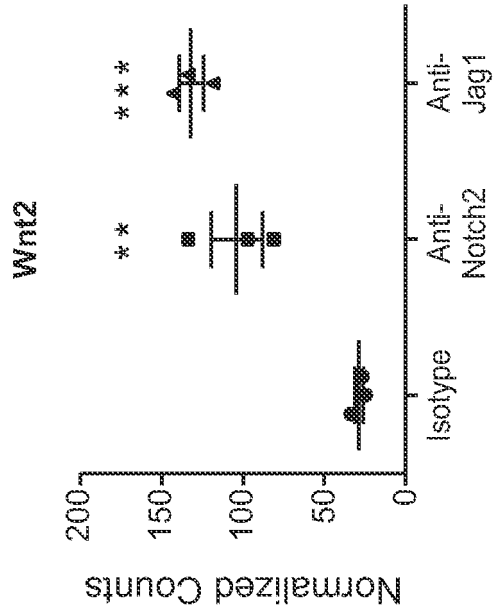


FIG. 6G

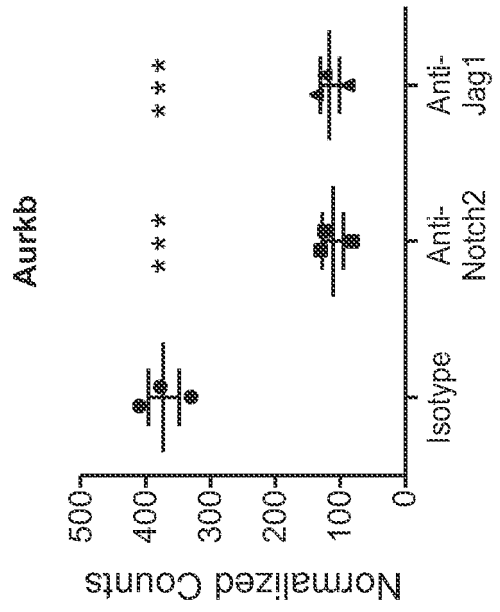


FIG. 6F

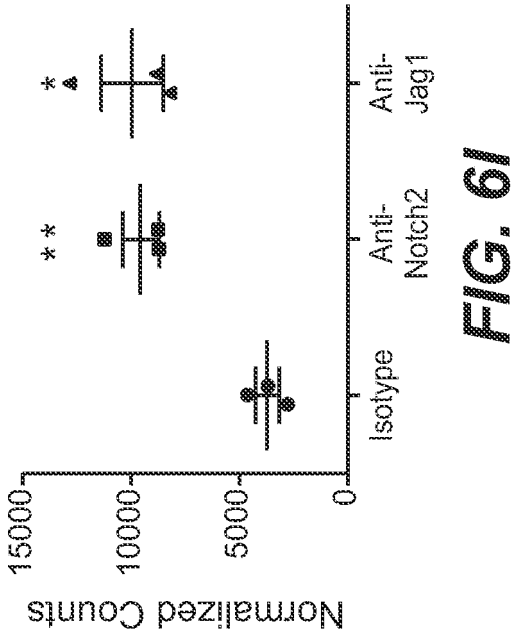


FIG. 6I

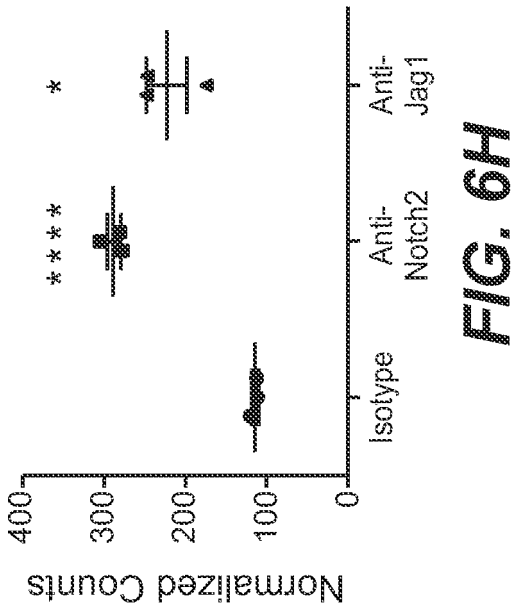


FIG. 6H

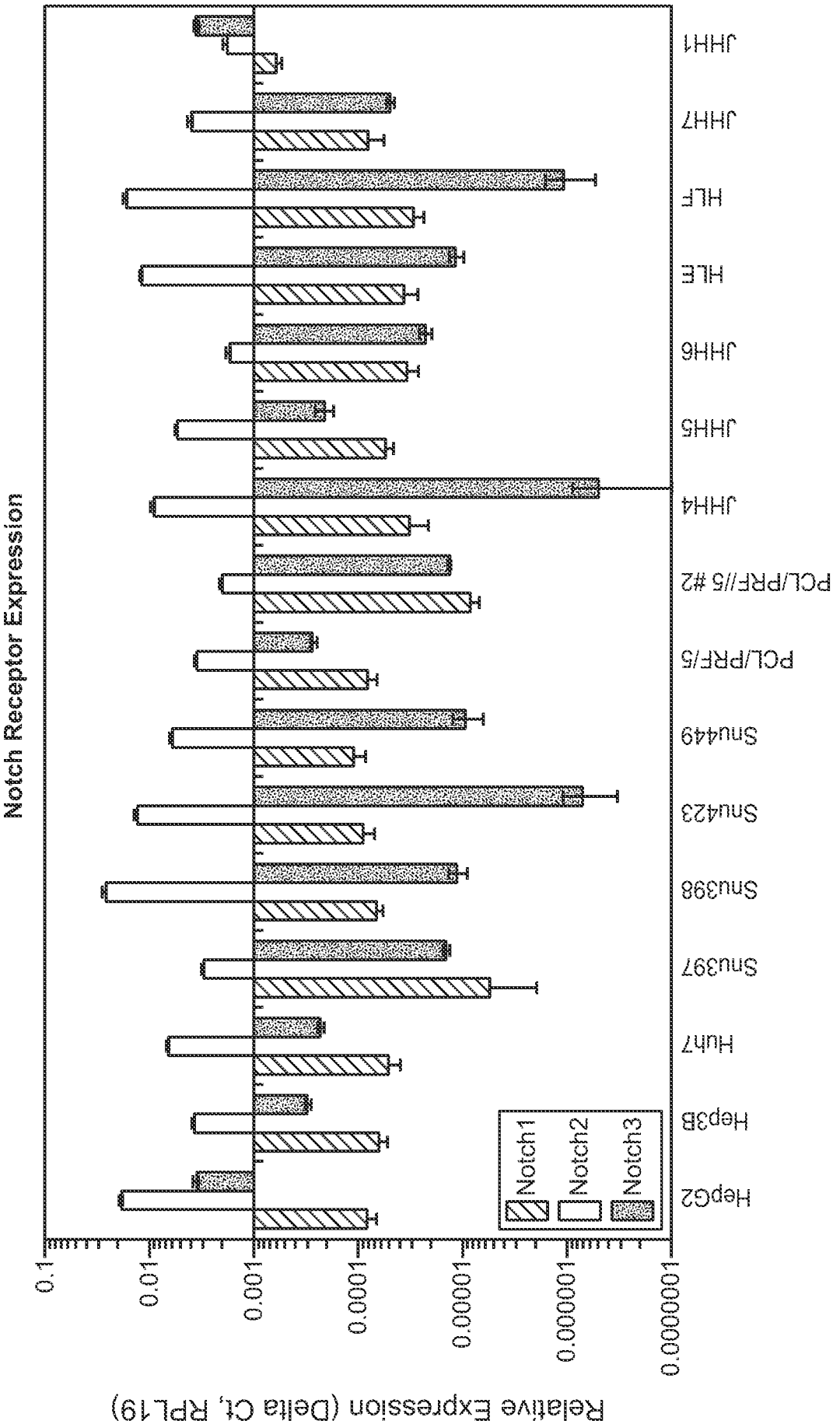

Notch Receptor Expression
Relative Expression (Delta Ct, RPL19)
0.1
0.01
0.001
0.0001
0.00001
0.000001
0.0000001
HepG2
Hep3B
Huh7
Snu397
Snu398
Snu423
Snu449
PCL/PRF/5
PCL/PRF/5 #2
JHH4
JHH5
JHH6
HLE
HLF
JHH7
JHH1
Notch1
Notch2
Notch3

FIG. 7A

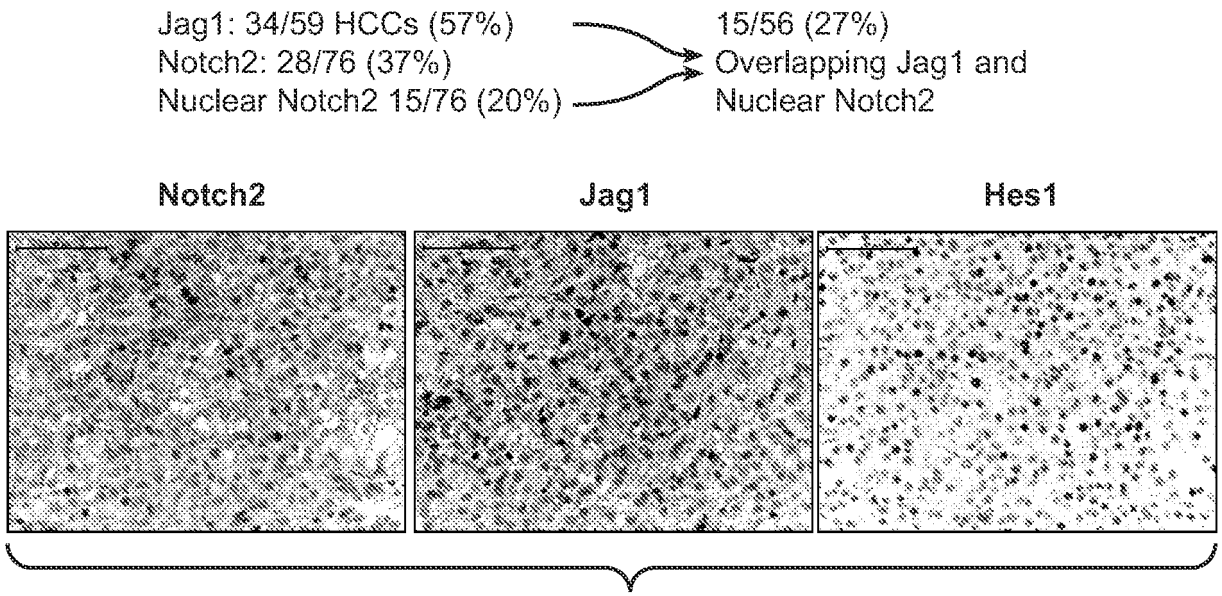


FIG. 7B

Human Notch2 NRR (SEQ ID NO: 73)

PATCLSQYCADKARDGVCDEACNSHACQWDGGDCSLTMENPWANCSSPLPCWDYI
NNQCDELCNTVECLFDNFECQGNSKTCKYDKYCADHFKDNHCDQGCNSEECGWDG
LDCAADQPENLAEGTLVIVVLMPPEQLLQDARSFLRALGTLLHTNLRIKRDSQGELMVY
PYYGEKSAAMKKQRMTRRSLPGEQEQEVAGSKVFLEIDNRQCVQDSDHCFKNTDAA
AALLASHAIQGTLSYPLVSVVSESLTPERTQ

FIG. 8A

Mouse Notch2 NRR (SEQ ID NO: 74)

PATCQSQYCADKARDGICDEACNSHACQWDGGDCSLTMEDPWANCTSTLRCWEYIN
NQCDEQCNTAECLFDNFECQRNSKTCKYDKYCADHFKDNHCDQGCNSEECGWDGL
DCASDQPENLAEGTLIIVVLLPPEQLLQDSRSFLRALGTLLHTNLRIKQDSQGALMVYPY
FGEKSAAMKKQKMTRRSLPEEQEQEQEVIGSKIFLEIDNRQCVQDSDQCFKNTDAAAA
LLASHAIQGTLSYPLVSVFSELESPRNAQ

FIG. 8B

HUMAN Notch2 (SEQ ID NO: 75)

MPALRPALLWALLALWLCCAAPAHALQCRDGYEPCVNEGMCVTYHNGTGYCKCPEGFLGEY
CQHRDPCEKNRCQNGGTCVAQAMLGKATCRCASGFTGEDCQYSTSHPCFVSRPCLNGGTC
HMLSRDTYECTCQVGFTGKECQWTDACLSHPCANGSTCTTVANQFSCKCLTGFTGQKCETD
VNECDIPGHCQHGGTCLNLPGSYQCQCPQGFTGQYCDSLYVPCAPSPCVNGGTCRQTGDFT
FECNCLPGFEGSTCERNIDDCPNHRCQNGGVCVDGVNTYNCRCPPQWTGQFCTEDVDECLL
QPNACQNGGTCANRNGGYGCVCVNGWSGDDCSENIDDCAFASCTPGSTCIDRVASFSCMCP
EGKAGLLCHLDDACISNPCHKGALCDTNPLNGQYICTCPQGYKGADCTEDVDECAMANSNPC
EHAGKCVNTDGAFHCECLKGYAGPRCEMDINECHSDPCQNDATCLDKIGGFTCLCMPGFKGV
HCELEINECQSNPCVNNGQCVDKVNRFQCLCPPGFTGPVCQIDIDDCSSTPCLNGAKCIDHPN
GYECQCATGFTGVLCEENIDNCDPDPCHHGQCQDGIDSYTCICNPGYMGAICSDQIDECYSSP
CLNDGRCIDLVNGYQCNCQPGTSGVNCEINFDDCASNPCIHGICMDGINRYSCVCSPGFTGQR
CNIDIDECASNPCRKGATCINGVNGFRCICPEGPHHPSCYSQVNECLSNPCIHGNCTGGLSGY
KCLCDAGWVGINCEVDKNECLSNPCQNGGTCDNLVNGYRCTCKKGFKGYNCQVNIDECASN
PCLNQGTCFDDISGYTCHCVLPYTGKNCQTVLAPCSPNPCENAAVCKESPNFESYTCLCAPG
WQGQRCTIDIDECISKPCMNHGLCHNTQGSYMCECPPGFSGMDCEEDIDDCLANPCQNGGS
CMDGVNTFSCLCLPGFTGDKCQTDMNECLSEPCKNGGTCSDYVNSYTCKCQAGFDGVHCEN
NINECTESSCFNGGTCVDGINSFSCLCPVGFTGSFCLHEINECSSHPCLNEGTCVDGLGTYRC
SCPLGYTGKNCQTLVNLCSRSPCKNKGTCVQKKAESQCLCPSGWAGAYCDVPNVSCDIAASR
RGVLVEHLCQHSGVCINAGNTHYCQCPLGYTGSYCEEQLDECASNPCQHGATCSDFIGGYRC
ECVPGYQGVNCEYEVDECQNQPCQNGGTCIDLVNHFKCSCPPGTRGLLCEENIDDCARGPH
CLNGGQCMDRIGGYSCRCLPGFAGERCEGDINECLSNPCSSEGSLDCIQLTNDYLCVCRSAFT
GRHCETFVDVCPQMPCLNGGTCAVASNMPDGFICRCPPGFSGARCQSSCGQVKCRKGEQC
VHTASGPRCFCPSPRDCESGCASSPCQHGGSCHPQRQPPYYSCQCAPPFSGSRCELYTAPP
STPPATCLSQYCADKARDGVCDEACNSHACQWDGGDCSLTMENPWANCSSPLPCWDYINN
QCDELCNTVECLFDNFECQGNSKTCKYDKYCADHFKDNHCDQGCNSEECGWDGLDCAADQ
PENLAEGTLVIVVLMPPEQLLQDARSFLRALGTLLHTNLRIKRDSQGELMVYPYYGEKSAAMKK
QRMTRRSLPGEQEQEVAGSKVFLEIDNRQCVQDSDHCFKNTDAAAALLASHAIQGTLSYPLVS
VVSESLTPERTQLLYLLAVAVVIILFIILLGVIMAKRKRKHGSLWLPEGFTLRRDASNHKRREPVG
QDAVGLKNLSVQVSEANLIGTGTSEHWVDDEGPQPKKVKAEDEALLSEEDDPIDRRPWTQQH
LEAADIRRTPSLALTPPQAEQEVDVLDVNVRGPDGCTPLMLASLRGGSSDLSDEDEDAEDSSA
NIITDLVYQGASLQAQTDRTGEMALHLAARYSRADAAKRLLDAGADANAQDNMGRCPLHAAVA
ADAQGVFQILIRNRVTDLDARMNDGTTPLILAARLAVEGMVAELINCQADVNAVDDHGKSALHW
AAAVNNVEATLLLLKNGANRDMQDNKEETPLFLAAREGSYEAAKILLDHFANRDITDHMDRLPR
DVARDRMHHDIVRLLDEYNVTPSPPGTVLTSALSPVICGPNRSFLSLKHTPMGKKSRRPSAKST
MPTSLPNLAKEAKDAKGSRRKKSLSEKVQLSESSVTLSPVDSLESPHTYVSDTTSSPMITSPGIL
QASPNPMLATAAPPAPVHAQHALSFSNLHEMQPLAHGASTVLPSVSQLLSHHHIVSPGSGSAG
SLSRLHPVPVPADWMNRMEVNETQYNEMFGMVLAPAEGTHPGIAPQSRPPEGKHITTPREPL
PPIVTFQLIPKGSIAQPAGAPQPQSTCPPAVAGPLPTMYQIPEMARLPSVAFPTAMMPQQDGQ
VAQTILPAYHPFPASVGKYPTPPSQHSYASSNAAERTPSHSGHLQGEHPYLTPSPESPDQWSS
SSPHSASDWSDVTTSPTPGGAGGGQRGPGTHMSEPPHNNMQVYA

FIG. 8C

HUMAN Notch2 (SEQ ID NO: 76)

MPDLRPAALRALLWLWLCGAGPAHALQCRGGQEPCVNEGTCVTYHNGTGFCRCPEGFLGEY
CQHRDPCEKNRCQNGGTCVPQGMLGKATCRCAPGFTGEDCQYSTSHPCFVSRPCQNGGTC
HMLSRDTYECTCQVGFTGKQCQWTDACLSHPCENGSTCTSVASQFSCKCPAGLTGQKCEAD
INECDIPGRCQHGGTCLNLPGSYRCQCGQGFTGQHCDSPYVRGLPCVNGGTCRQTGDFTLE
CNCLPGFEGSTCERNIDDCPNHKCQNGGVCVDGVNTYNCRCPPQWTGQFCTEDVDECLLQP
NACQNGGTCTNRNGGYGCVCVNGWSGDDCSENIDDCAYASCTPGSTCIDRVASFSCLCPEG
KAGLLCHLDDACISNPCHKGALCDTNPLNGQYICTCPQGYKGADCTEDVDECAMANSNPCEH
AGKCVNTDGAFHCECLKGYAGPRCEMDINECHSDPCQNDATCLDKIGGFTCLCMPGFKGVHC
ELEVNECQSNPCVNNGQCVDKVNRFQCLCPPGFTGPVCQIDIDDCSSTPCLNGAKCIDHPNG
YECQCATGFTGILCDENIDNCDPDPCHHGQCQDGIDSYTCICNPGYMGAICSDQIDECYSSPCL
NDGRCIDLVNGYQCNCQPGTSGLNCEINFDDCASNPCMHGVCVDGINRYSCVCSPGFTGQR
CNIDIDECASNPCRKGATCINDVNGFRCICPEGPHHPSCYSQVNECLSNPCIHGNCTGGLSGY
KCLCDAGWVGVNCEVDKNECLSNPCQNGGTCNNLVNGYRCTCKKGFKGYNCQVNIDECASN
PCLNQGTCFDDVSGYTCHCMLPYTGKNCQTVLAPCSPNPCENAAVCKEAPNFESFSCLCAPG
WQGKRCTVDVDECISKPCMNNGVCHNTQGSYVCECPPGFSGMDCEEDINDCLANPCQNGG
SCVDHVNTFSCQCHPGFIGDKCQTDMNECLSEPCKNGGTCSDYVNSYTCTCPAGFHGVHCE
NNIDECTESSCFNGGTCVDGINSFSCLCPVGFTGPFCLHDINECSSNPCLNAGTCVDGLGTYR
CICPLGYTGKNCQTLVNLCSRSPCKNKGTCVQEKARPHCLCPPGWDGAYCDVLNVSCKAAAL
QKGVPVEHLCQHSGICINAGNTHHCQCPLGYTGSYCEEQLDECASNPCQHGATCNDFIGGYR
CECVPGYQGV

FIG. 8D

HUMAN Jag1 (SEQ ID NO: 78)

MRSPRTRGRSGRPLSLLLALLCALRAKVCGASGQFELEILSMQNVNGELQNGNCCGGARN
PGDRKCTRDECDTYFKVCLKEYQSRVTAGGPCSFGSGSTPVIGGNTFNLKASRGNDRNRI
VLPFSFAWPRSYTLLVEAWDSSNDTVQPDSIIEKASHSGMINPSRQWQTLKQNTGVAHFE
YQIRVTCDDYYYGFGCNKFCRPRDDFFGHYACDQNGNKTCMEGWMGPECNRAICRQGCSP
KHGSCKLPGDCRCQYGWQGLYCDKCIPHPGCVHGICNEPWQCLCETNWGGQLCDKDLNYC
GTHQPCLNGGTCSNTGPDKYQCSCPEGYSGPNCEIAEHACLSDPCHNRGSCKETSLGFEC
ECSPGWTGPTCSTNIDDCSPNNCSHGGTCQDLVNGFKCVCPPQWTGKTCQLDANECEAKP
CVNAKSCKNLIASYYCDCLPGWMGQNCDININDCLGQCQNDASCRDLVNGYRCICPPGYA
GDHCERDIDECASNPCLNGGHCQNEINRFQCLCPTGFSGNLCQLDIDYCEPNPCQNGAQC
YNRASDYFCKCPEDYEGKNCSHLKDHCRTTPCEVIDSCTVAMASNDTPEGVRYISSNVCG
PHGKCKSQSGGKFTCDCNKGFTGTYCHENINDCESNPCRNGGTCIDGVNSYKCICSDGWE
GAYCETNINDCSQNPCHNGGTCRDLVNDFYCDCKNGWKGKTCHSRDSQCDEATCNNGGTC
YDEGDAFKCMCPGGWEGTTCNIARNSSCLPNPCHNGGTCVVNGESFTCVCKEGWEGPICA
QNTNDCSPHPCYNSGTCVDGDNWYRCECAPGFAGPDCRININECQSSPCAFGATCVDEIN
GYRCVCPPGHSGAKCQEVSGRPCITMGSVIPDGAKWDDDCNTCQCLNGRIACSKVWCGPR
PCLLHKGHSECPSGQSCIPILDDQCFVHPCTGVGECRSSSLQPVKTKCTSDSYYQDNCAN
ITFTFNKEMMSPGLTTEHICSELRNLNILKNVSAEYSIYIACEPSPSANNEIHVAISAED
IRDDGNPIKEITDKIIDLVSKRDGNSSLIAAVAEVRVQRRPLKNRTDFLVPLLSSVLTVA
WICCLVTAFYWCLRKRRKPGSHTHSASEDNTTNNVREQLNQIKNPIEKHGANTVPIKDYE
NKNSKMSKIRTHNSEVEEDDMDKHQQKARFAKQPAYTLVDREEKPPNGTPTKHPNWTNKQ
DNRDLESAQSLNRMEYIV

MURINE Jag1 (SEQ ID NO:79)

MRSPRTRGRPGRPLSLLLALLCALRAKVCGASGQFELEILSMQNVNGELQNGNCCGGVRN
PGDRKCTRDECDTYFKVCLKEYQSRVTAGGPCSFGSGSTPVIGGNTFNLKASRGNDRNRI
VLPFSFAWPRSYTLLVEAWDSSNDTIQPDSIIEKASHSGMINPSRQWQTLKQNTGIAHFE
YQIRVTCDDHYYGFGCNKFCRPRDDFFGHYACDQNGNKTCMEGWMGPDCNKAICRQGCSP
KHGSCKLPGDCRCQYGWQGLYCDKCIPHPGCVHGTCNEPWQCLCETNWGGQLCDKDLNYC
GTHQPCLNRGTCSNTGPDKYQCSCPEGYSGPNCEIAEHACLSDPCHNRGSCKETSSGFEC
ECSPGWTGPTCSTNIDDCSPNNCSHGGTCQDLVNGFKCVCPPQWTGKTCQLDANECEAKP
CVNARSCKNLIASYYCDCLPGWMGQNCDININDCLGQCQNDASCRDLVNGYRCICPPGYA
GDHCERDIDECASNPCLNGGHCQNEINRFQCLCPTGFSGNLCQLDIDYCEPNPCQNGAQC
YNRASDYFCKCPEDYEGKNCSHLKDHCRTTTCEVIDSCTVAMASNDTPEGVRYISSNVCG
PHGKCKSQSGGKFTCDCNKGFTGTYCHENINDCESNPCKNGGTCIDGVNSYKCICSDGWE
GAHCENNINDCSQNPCHYGGTCRDLVNDFYCDCKNGWKGKTCHSRDSQCDEATCNNGGTC
YDEVDTFKCMCPGGWEGTTCNIARNSSCLPNPCHNGGTCVVNGDSFTCVCKEGWEGPICT
QNTNDCSPHPCYNSGTCVDGDNWYRCECAPGFAGPDCRININECQSSPCAFGATCVDEIN
GYQCICPPGHSGAKCHEVSGRSCITMGRVILDGAKWDDDCNTCQCLNGRVACSKVWCGPR
PCRLHKSHNECPSGQSCIPVLDDQCFVRPCTGVGECRSSSLQPVKTKCTSDSYYQDNCAN
ITFTFNKEMMSPGLTTEHICSELRNLNILKNVSAEYSIYIACEPSLSANNEIHVAISAED
IRDDGNPVKEITDKIIDLVSKRDGNSSLIAAVAEVRVQRRPLKNRTDFLVPLLSSVLTVA
WVCCLVTAFYWCVRKRRKPSSHTHSAPEDNTTNNVREQLNQIKNPIEKHGANTVPIKDYE
NKNSKMSKIRTHNSEVEEDDMDKHQQKVRFAKQPVYTLVDREEKAPSGTPTKHPNWTNKQ
DNRDLESAQSLNRMEYIV

FIG. 9

Expressed protein murine Jag1-DSL-EGF1-4 (mouse Jag1 antigen) (SEQ ID NO: 80)

ADLGSQFELEILSMQNVNGELQNGNCCGGVRNPGDRKCTRDECDTYFKVCLKEYQSRVTAG
GPCSFGSGSTPVIGGNTFNLKASRGNDRNRIVLPFSFAWPRSYTLLVEAWDSSNDTIQPDSIIE
KASHSGMINPSRQWQTLKQNTGIAHFEYQIRVTCDDHYYGFGCNKFCRPRDDFFGHYACDQN
GNKTCMEGWMGPDCNKAICRQGCSPKHGSCKLPGDCRCQYGWQGLYCDKCIPHPGCVHGT
CNEPWQCLCETNWGGQLCDKDLNYCGTHQPCLNRGTCSNTGPDKYQCSCPEGYSGPNCEI
AEHACLSDPCHNRGSCKETSSGFECECSPGWTGPTCSTNIDD**EFGLVPRGSGHHHHHH**

FIG. 10A

Expressed protein human Jag1-DSL-EGF1-4 (human Jag1 antigen) (SEQ ID NO: 28)

QFELEILSMQNVNGELQNGNCCGGARNPGDRKCTRDECDTYFKVCLKEYQSRVTAGGPCSF
GSGSTPVIGGNTFNLKASRGNDRNRIVLPFSFAWPRSYTLLVEAWDSSNDTVQPDSIIEKASHS
GMINPSRQWQTLKQNTGVAHFEYQIRVTCDDYYYGFGCNKFCRPRDDFFGHYACDQNGNKT
CMEGWMGPECNRAICRQGCSPKHGSCKLPGDCRCQYGWQGLYCDKCIPHPGCVHGICNEP
WQCLCETNWGGQLCDKDLNYCGTHQPCLNGGTCSNTGPDKYQCSCPEGYSGPNCEIAEHA
CLSDPCHNRGSCKETSLGFECECSPGWTGPTCSTNIDD

FIG. 10B

Human Secreted Phosphoprotein1 (SPP1) (SEQ ID NO: 29)

MRIAVICFCLLGITCAIPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQNLLAPQNA
VSSEETNDFKQETLPSKSNESHDHMDDMDDEDDDDHVDSQDSIDSNDSDDVDDTDDSHQS
DESHHSDESDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVVYGLRSKSKKFRRPDIQ
YPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAETHSH
KQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKF
RISHELDSASSEVN

FIG. 11

HVR-H1 Sequences - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number									
Antibody	SEQ ID NO:	26	27	28	29	30	31	32	33	34	35
B, B-1, B-2, B-3	1	G	Y	S	F	T	S	Y	G	M	S

HVR-H2 Sequence - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number																
Antibody #	SEQ ID NO:	49	50	51	52	52a	53	54	55	56	57	58	59	60	61	62	63	64	65
B, B-1, B-2, B-3	3	S	Y	I	Y	P	Y	S	G	A	T	Y	Y	A	D	S	V	K	G

HVR-H3 Sequence - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number												
Antibody #	SEQ ID NO:	95	96	97	98	99	100	100A	100B	100C	100D	100K	101	102
B, B-1, B-2, B-3	4	H	S	G	Y	Y	R	I	S	S	A	M	D	V

FIG. 12

HVR-L1 Sequences - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number									
Antibody #	SEQ ID NO:	24	25	26	27	28	29	30	31	32	33	34
B	5	R	A	S	Q	S	I	S	S	Y	L	A
B-1	6	R	A	S	Q	S	N	R	R	F	L	A
B-2	7	R	A	S	Q	S	V	R	S	F	L	A
B-3	8	R	A	S	Q	N	I	K	R	F	L	A
Consensus	9	R	A	S	Q	S/N	I/N/V	S/R/K	S/R	Y/F	L	A

HVR-L2 Sequences - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number							
Antibody #	SEQ ID NO:	50	51	52	53	54	55	56	
B	10	G	A	S	S	R	A	S	
B-1	11	G	A	S	R	R	A	S	
B-2	12	R	A	S	I	R	A	S	
B-3	13	G	A	S	T	R	E	S	
Consensus	14	G/R	A	S	S/R/I/T	R	A/E	S	

HVR-L3 Sequences - Antibody B and Affinity Matured Antibodies Derived from Antibody B

		Kabat Number									
Antibody #	SEQ ID NO:	89	90	91	92	93	94	95	96	97	
B	15	Q	Q	Y	Y	S	S	P	L	T	
B-1	16	Q	Q	Y	Y	I	S	P	L	T	
B-2	17	Q	Q	Y	Y	I	S	P	W	T	
B-3	18	Q	Q	Y	Y	R	S	P	H	T	
Consensus	19	Q	Q	Y	Y	S/I/R	S	P	L/H/S	T	

FIG. 13

Kabat Numbering	SEQ ID NO:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Antibody B	20	E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A	A
Antibody B-1	20	E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A	A
Antibody B-2	20	E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A	A
Antibody B-3	20	E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A	A

Kabat - CDR H1

		25	26	27	28	29	30	31	32	33	34	35	35A	35B	36	37	38	39	40	41	42	43	44	45	46
Antibody B	20	S	G	Y	S	F	T	S	Y	G	M	S	.	.	W	V	R	Q	A	P	G	K	G	L	E
Antibody B-1	20	S	G	Y	S	F	T	S	Y	G	M	S	.	.	W	V	R	Q	A	P	G	K	G	L	E
Antibody B-2	20	S	G	Y	S	F	T	S	Y	G	M	S	.	.	W	V	R	Q	A	P	G	K	G	L	E
Antibody B-3	20	S	G	Y	S	F	T	S	Y	G	M	S	.	.	W	V	R	Q	A	P	G	K	G	L	E

Kabat - CDR H2

		47	48	49	50	51	52	52A	52B	52C	53	54	55	56	57	58	59	60	61	62	62	64	65	66	67
Antibody B	20	W	V	S	Y	I	Y	P	.	.	Y	S	G	A	T	Y	Y	A	D	S	V	K	G	R	F
Antibody B-1	20	W	V	S	Y	I	Y	P	.	.	Y	S	G	A	T	Y	Y	A	D	S	V	K	G	R	F
Antibody B-2	20	W	V	S	Y	I	Y	P	.	.	Y	S	G	A	T	Y	Y	A	D	S	V	K	G	R	F
Antibody B-3	20	W	V	S	Y	I	Y	P	.	.	Y	S	G	A	T	Y	Y	A	D	S	V	K	G	R	F

		68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	82A	82B	82C	83	84	85	86	87	88
Antibody B	20	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D	T	A
Antibody B-1	20	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D	T	A
Antibody B-2	20	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D	T	A
Antibody B-3	20	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D	T	A

FIG. 14A

Kabat - CDR H3

Kabat Numbering	SEQ ID NO:	89	90	91	92	93	94	95	96	97	98	99	100	100A	100B	100C	100D	100E	100F	100G	100H	100I	100J	100K	100L
Antibody B	20	V	Y	Y	C	A	R	H	S	G	Y	Y	R	I	S	S	A	.	.	.	.	.	.	.	.
Antibody B-1	20	V	Y	Y	C	A	R	H	S	G	Y	Y	R	I	S	S	A	.	.	.	.	.	.	.	.
Antibody B-2	20	V	Y	Y	C	A	R	H	S	G	Y	Y	R	I	S	S	A	.	.	.	.	.	.	.	.
Antibody B-3	20	V	Y	Y	C	A	R	H	S	G	Y	Y	R	I	S	S	A	.	.	.	.	.	.	.	.

Kabat Numbering	SEQ ID NO:	100M	101	102	103	104	105	106	107	108	109	110	111	112	113
Antibody B	20	M	D	V	W	G	Q	G	T	L	V	T	V	S	S
Antibody B-1	20	M	D	V	W	G	Q	G	T	L	V	T	V	S	S
Antibody B-2	20	M	D	V	W	G	Q	G	T	L	V	T	V	S	S
Antibody B-3	20	M	D	V	W	G	Q	G	T	L	V	T	V	S	S

FIG. 14B

Kabat Numbering	SEQ ID NO:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Antibody B	22	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Antibody B-1	23	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Antibody B-2	24	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Antibody B-3	25	D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C

		Kabat - CDR L1																						
		24	25	26	27	27A	27B	27C	27D	27E	27F	28	29	30	31	32	33	34	35	36	37	38	39	40
Antibody B	22	R	A	S	Q	.	.	.	.	.	.	S	I	S	S	Y	L	A	W	Y	Q	Q	K	P
Antibody B-1	23	R	A	S	Q	.	.	.	.	.	.	S	N	R	R	F	L	A	W	Y	Q	Q	K	P
Antibody B-2	24	R	A	S	Q	.	.	.	.	.	.	S	V	R	S	F	L	A	W	Y	Q	Q	K	P
Antibody B-3	25	R	A	S	Q	.	.	.	.	.	.	N	I	K	R	F	L	A	W	Y	Q	Q	K	P

											Kabat - CDR L2													
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	54A	54B	54C	54D	54E	55	56	57	58
Antibody B	22	G	K	A	P	K	L	L	I	Y	G	A	S	S	R	.	.	.	.	.	A	S	G	V
Antibody B-1	23	G	K	A	P	K	L	L	I	Y	G	A	S	R	R	.	.	.	.	.	A	S	G	V
Antibody B-2	24	G	K	A	P	K	L	L	I	Y	R	A	S	I	R	.	.	.	.	.	A	S	G	V
Antibody B-3	25	G	K	A	P	K	L	L	I	Y	G	A	S	T	R	.	.	.	.	.	E	S	G	V

		59	60	61	62	63	64	65	66	66A	66B	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Antibody B	22	P	S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P
Antibody B-1	23	P	S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P
Antibody B-2	24	P	S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P
Antibody B-3	25	P	S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P

FIG. 15A

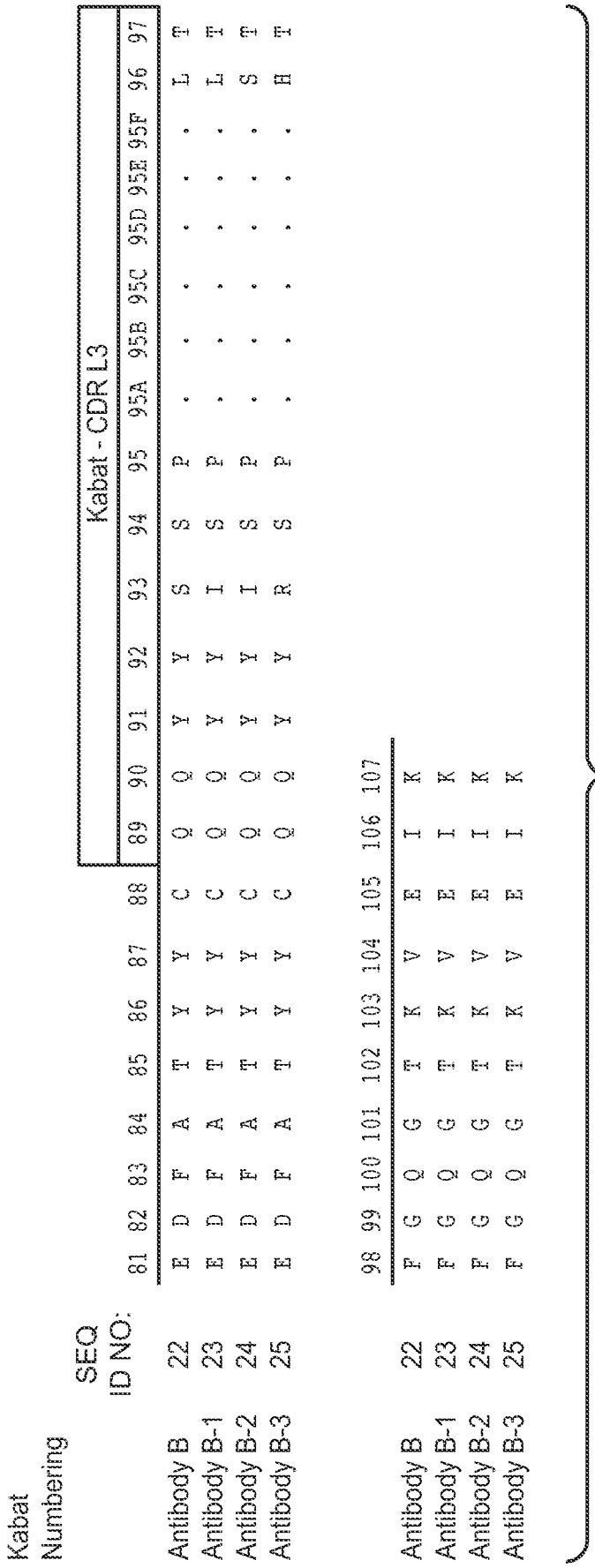

Kabat - CDR L3
Kabat Numbering
SEQ ID NO:
81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 95A 95B 95C 95D 95E 95F 96 97
Antibody B 22 E D F A T Y Y C Q Q Y Y S S P . . . . . L T
Antibody B-1 23 E D F A T Y Y C Q Q Y Y I S P . . . . . L T
Antibody B-2 24 E D F A T Y Y C Q Q Y Y I S P . . . . . S T
Antibody B-3 25 E D F A T Y Y C Q Q Y Y R S P . . . . . H T
98 99 100 101 102 103 104 105 106 107
Antibody B 22 F G Q G T K V E I K
Antibody B-1 23 F G Q G T K V E I K
Antibody B-2 24 F G Q G T K V E I K
Antibody B-3 25 F G Q G T K V E I K

FIG. 15B

FR1
FR2
-H1-
-H2-
I
A QVQLVQSGAEVKKPGASVKVSCKASGYTFT WVRQAPGQGLEWMG RVTIT
B QVQLVQSGAEVKKPGASVKVSCKAS WVRQAPGQGLEWM RVTIT
C QVQLVQSGAEVKKPGASVKVSCKAS WVRQAPGQGLEWM RVTIT
D QVQLVQSGAEVKKPGASVKVSCKAS WVRQAPGQGLEWM RVTIT
II
A QVQLQESGPGLVKPSQTLSLTCTVSGGSVS WIRQPPGKGLEWIG RVTIS
B QVQLQESGPGLVKPSQTLSLTCTVS WIRQPPGKGLEWI RVTIS
C QVQLQESGPGLVKPSQTLSLTCTVS WIRQPPGKGLEWI RVTIS
D QVQLQESGPGLVKPSQTLSLTCTVS WIRQPPGKGLEWI RVTIS
III
A EVQLVESGGGLVQPGGSLRLSCAASGFTFS WVRQAPGKGLEWVS RFTIS
B EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
C EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
D EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
Acceptor - 1
A EVQLVESGGGLVQPGGSLRLSCAASGFNIK WVRQAPGKGLEWVS RFTIS
B EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
C EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
Acceptor - 2
A EVQLVESGGGLVQPGGSLRLSCAASGFNIK WVRQAPGKGLEWVS RFTIS
B EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
C EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS
D EVQLVESGGGLVQPGGSLRLSCAAS WVRQAPGKGLEWV RFTIS

FIG. 16A

	FR3		FR4	SEQ ID NOs of FR1, FR2, FR3, FR4
I				
A	ADTSTSTAYMELSSLRSEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 32, 33, 34, 35
B	ADTSTSTAYMELSSLRSEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 36, 37, 34, 35
C	ADTSTSTAYMELSSLRSEDTAVYYCA	-H3-	WGQGTLVTVSS	SEQ ID NO.: 36, 37, 38, 35
D	ADTSTSTAYMELSSLRSEDTAVYYC	-H3-	WGQGTLVTVSS	SEQ ID NO.: 36, 37, 39, 35
II				
A	VDTSKNQFSLKLSSVTAADTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 40, 41, 42, 35
B	VDTSKNQFSLKLSSVTAADTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 43, 44, 42, 35
C	VDTSKNQFSLKLSSVTAADTAVYYCA	-H3-	WGQGTLVTVSS	SEQ ID NO.: 43, 44, 45, 35
D	VDTSKNQFSLKLSSVTAADTAVYYC	-H3-	WGQGTLVTVSS	SEQ ID NO.: 43, 44, 46, 35
III				
A	RDNSKNTLYLQMNSLRAEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 47, 48, 49, 35
B	RDNSKNTLYLQMNSLRAEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 49, 35
C	RDNSKNTLYLQMNSLRAEDTAVYYCA	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 52, 35
D	RDNSKNTLYLQMNSLRAEDTAVYYC	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 53, 35
Acceptor - 1				
A	[A]DTSKNTAYLQMNSLRAEDTAVYYC[S]R	-H3-	WGQGTLVTVSS	SEQ ID NO.: 54, 48, 55, 35
B	[A]DTSKNTAYLQMNSLRAEDTAVYYC[S]R	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 55, 35
C	[A]DTSKNTAYLQMNSLRAEDTAVYYC[S]	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 56, 35
Acceptor - 2				
A	[A]DTSKNTAYLQMNSLRAEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 54, 48, 57, 35
B	[A]DTSKNTAYLQMNSLRAEDTAVYYCAR	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 57, 35
C	[A]DTSKNTAYLQMNSLRAEDTAVYYCA	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 58, 35
D	[A]DTSKNTAYLQMNSLRAEDTAVYYC	-H3-	WGQGTLVTVSS	SEQ ID NO.: 50, 51, 59, 35

FIG. 16B

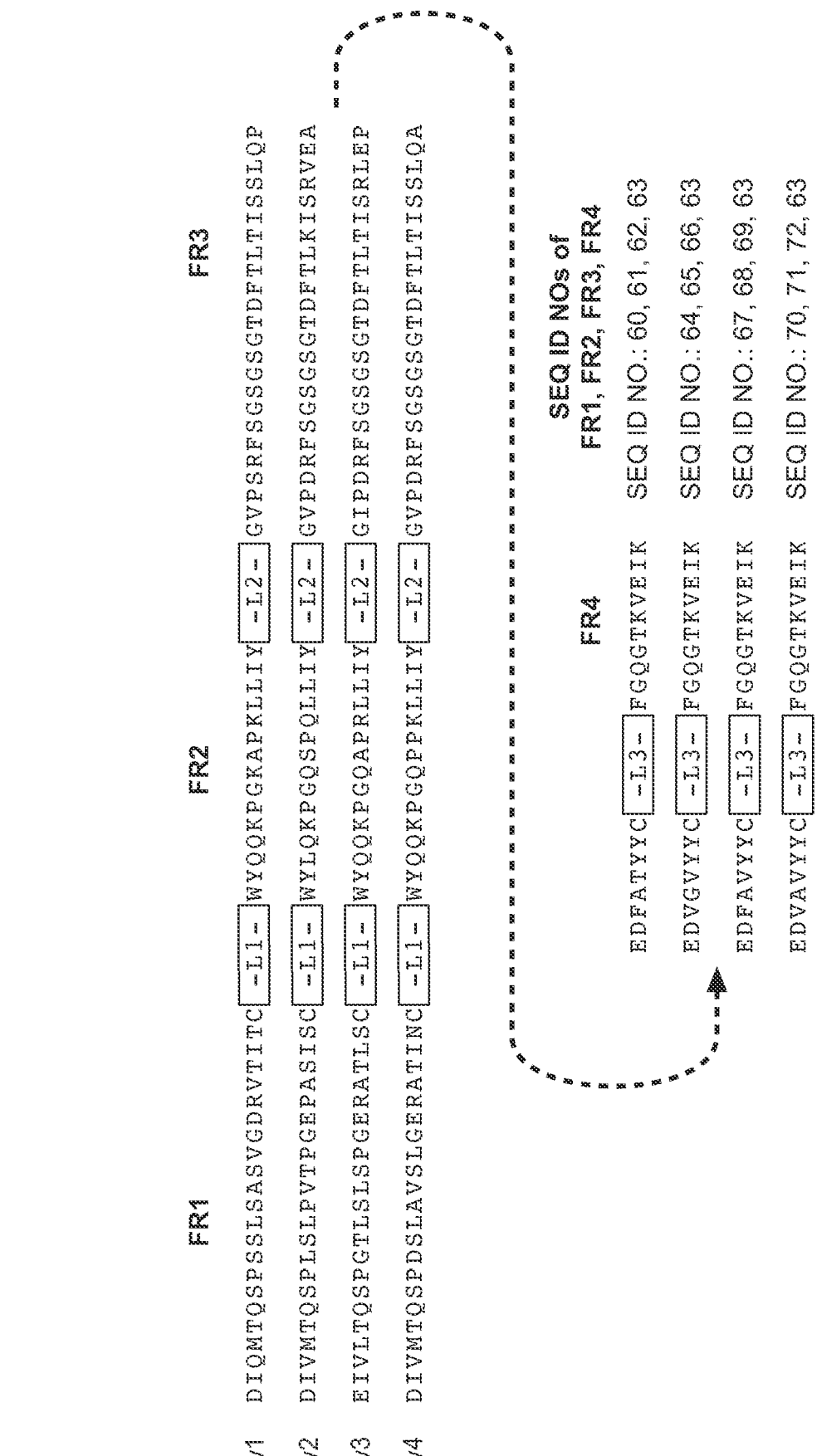

FR1
FR2
FR3
kv1
DIQMTQSPSSLSASVGDRVTITC -L1- WYQQKPGKAPKLLIY -L2- GVPSRFSGSGSGTDFTLTISSLQP
kv2
DIVMTQSPLSLPVTPGEPASISC -L1- WYLQKPGQSPQLLIY -L2- GVPDRFSGSGSGTDFTLKISRVEA
kv3
EIVLTQSPGTLSLSPGERATLSC -L1- WYQQKPGQAPRLLIY -L2- GIPDRFSGSGSGTDFTLTISRLEP
kv4
DIVMTQSPDSLAVSLGERATINC -L1- WYQQKPGQPPKLLIY -L2- GVPDRFSGSGSGTDFTLTISSLQA
FR4
SEQ ID NOs of FR1, FR2, FR3, FR4
EDFATYYC -L3- FGQGTKVEIK SEQ ID NO.: 60, 61, 62, 63
EDVGVYYC -L3- FGQGTKVEIK SEQ ID NO.: 64, 65, 66, 63
EDFAVYYC -L3- FGQGTKVEIK SEQ ID NO.: 67, 68, 69, 63
EDVAVYYC -L3- FGQGTKVEIK SEQ ID NO.: 70, 71, 72, 63

FIG. 17

Framework Sequences of huMAb4D5-8 Light Chain Variable Domain

LC-FR1 [1]Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys[23]

LC-FR2 [35]Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr[49]

LC-FR3 [57]Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys[88]

LC-FR4 [98]Phe Gly Gln Gly Thr Lys Val Glu Ile Lys[107]

Framework Sequences of huMAb4D5-8 Heavy Chain Variable Domain

HC-FR1 [1]Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser[25]

HC-FR2 [36]Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val[48]

HC-FR3 [66]Arg Phe Thr Ile Ser Ala Asp Thr Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn[83] Ser[83a] Leu[83b] Arg[83c] Ala Glu Asp Thr Ala Val Tyr Tyr Cys[92]

HC-FR4 [103]Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser[113]

FIG. 18

Framework Sequences of huMAb4D5-8 Light Chain Variable Domain Modified at Positions 66 and 99 (Underlined)

LC-FR1 [1]Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys[23]

LC-FR2 [35]Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr[49]

LC-FR3 [57]Gly Val Pro Ser Arg Phe Ser Gly Ser <u>Gly</u> Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys[88]

LC-FR4 [98]Phe <u>Arg</u> Gln Gly Thr Lys Val Glu Ile Lys[107]

Framework Sequences of huMAb4D5-8 Heavy Chain Variable Domain Modified at Postions 71, 73 and 78 (Underlined)

HC-FR1 [1]Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser[25]

HC-FR2 [36]Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val[48]

HC-FR3 [66]Arg Phe Thr Ile Ser <u>Arg</u> Asp <u>Asn</u> Ser Lys Asn Thr <u>Leu</u> Tyr Leu Gln Met Asn83 Ser83a Leu83b Arg83c Ala Glu Asp Thr Ala Val Tyr Tyr Cys[92]

HC-FR4 [103]Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser[113]

FIG. 19

HVR-H1 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number									
Antibody #	SEQ ID NO:	26	27	28	29	30	31	32	33	34	35
A, A-1, A-2	81	G	F	T	F	S	N	Y	G	I	H

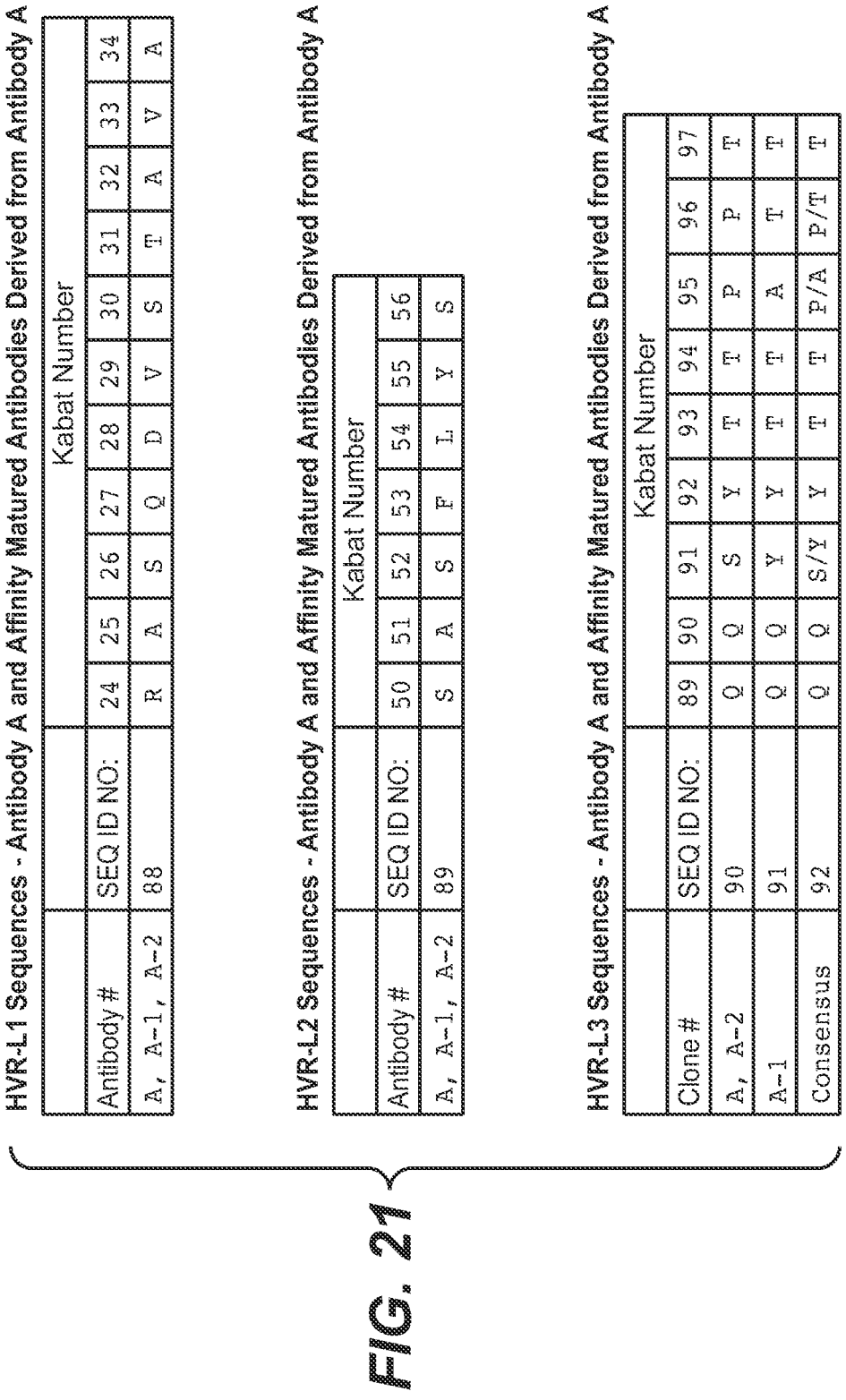
HVR-H2 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number																
Antibody #	SEQ ID NO:	50	51	52	52A	53	54	55	56	57	58	59	60	61	62	63	64	65
A, A-1	82	W	I	T	P	D	G	G	Y	T	D	Y	A	D	S	V	K	G
A-2	83	W	I	T	G	N	G	G	Y	S	D	Y	A	D	S	V	K	G
Consensus	84	W	I	T	P/G	D/N	G	G	Y	T/S	D	Y	A	D	S	V	K	G

HVR-H3 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number							
Antibody #	SEQ ID NO:	95	96	97	98	100k	101	102	
A, A-2	85	A	G	S	W	F	A	Y	
A-1	86	A	G	S	L	F	A	Y	
Consensus	87	A	G	S	W/L	F	A	Y	

FIG. 20



HVR-L1 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number										
Antibody #	SEQ ID NO:	24	25	26	27	28	29	30	31	32	33	34
A, A-1, A-2	88	R	A	S	Q	D	V	S	T	A	V	A

HVR-L2 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number						
Antibody #	SEQ ID NO:	50	51	52	53	54	55	56
A, A-1, A-2	89	S	A	S	F	L	Y	S

HVR-L3 Sequences - Antibody A and Affinity Matured Antibodies Derived from Antibody A

		Kabat Number								
Clone #	SEQ ID NO:	89	90	91	92	93	94	95	96	97
A, A-2	90	Q	Q	S	Y	T	T	P	P	T
A-1	91	Q	Q	Y	Y	T	T	A	T	T
Consensus	92	Q	Q	S/Y	Y	T	T	P/A	P/T	T

FIG. 21

Framework Sequences of Antibodies A, A-1, A-2 Light Chain Variable Domain

LC-FR1 [1]Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys[23]

LC-FR2 [35]Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr[49]

LC-FR3 [57]Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys[88]

LC-FR4 [98]Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg[108]

Framework Sequences of Antibodies A, A-1, A-2 Heavy Chain Variable Domain

HC-FR1 [1]Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser[25]

HC-FR2 [36]Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly[49]

HC-FR3 [66]Arg Phe Thr Ile Ser Ala Asp Thr Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg[94]

HC-FR4 [103]Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser[113]

FIG. 22

Antibody	Light Chain Sequences	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Anti-Notch2		D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Anti-Notch1		D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Anti-Notch3		D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C
Anti-Jag1		D	I	Q	M	T	Q	S	P	S	S	L	S	A	S	V	G	D	R	V	T	I	T	C

		Kabat - CDR L1																						
		24	25	26	27	27A	27B	27C	27D	27E	27F	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Anti-Notch2		R	A	S	Q	.	.	.	.	.	.	N	I	K	R	F	L	A	W	Y	Q	Q	K	P	G
Anti-Notch1		R	A	S	Q	.	.	.	.	.	.	D	V	S	T	A	V	A	W	Y	Q	Q	K	P	G
Anti-Notch3		R	A	S	Q	.	.	.	.	.	.	G	I	S	S	Y	V	A	W	Y	Q	Q	K	P	G
Anti-Jag1		R	A	S	Q	.	.	.	.	.	.	D	V	S	T	A	V	A	W	Y	Q	Q	K	P	G

										Kabat - CDR L2														
		42	43	44	45	46	47	48	49	50	51	52	53	54	54A	54B	54C	54D	54E	55	56	57	58	59
Anti-Notch2		K	A	P	K	L	L	I	Y	G	A	S	T	R	.	.	.	.	.	E	S	G	V	P
Anti-Notch1		K	A	P	K	L	L	I	Y	S	A	S	F	L	.	.	.	.	.	Y	S	G	V	P
Anti-Notch3		K	A	P	K	L	L	I	Y	D	A	S	S	L	.	.	.	.	.	E	S	G	V	P
Anti-Jag1		K	A	P	K	L	L	I	Y	S	A	S	F	L	.	.	.	.	.	Y	S	G	V	P

		60	61	62	63	64	65	66	66A	66B	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
Anti-Notch2		S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P	E
Anti-Notch1		S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P	E
Anti-Notch3		S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P	E
Anti-Jag1		S	R	F	S	G	S	G	.	.	S	G	T	D	F	T	L	T	I	S	S	L	Q	P	E

FIG. 23A

Antibody	Light Chain Sequences							Kabat - CDR L3																
		82	83	84	85	86	87	88	89	90	91	92	93	94	95	95A	95B	95C	95D	95E	95F	96	97	98	99
Anti-Notch2		D	F	A	T	Y	Y	C	Q	Q	Y	Y	R	S	P	.	.	.	.	.	.	H	T	F	G
Anti-Notch1		D	F	A	T	Y	Y	C	Q	Q	F	Y	T	T	P	.	.	.	.	.	.	S	T	F	G
Anti-Notch3		D	F	A	T	Y	Y	C	Q	Q	W	N	S	Y	P	.	.	.	.	.	.	F	T	F	G
Anti-Jag1		D	F	A	T	Y	Y	C	Q	Q	S	Y	T	T	P	.	.	.	.	.	.	P	T	F	G

Antibody	100	101	102	103	104	105	106	107
Anti-Notch2	Q	G	T	K	V	E	I	K
Anti-Notch1	Q	G	T	K	V	E	I	K
Anti-Notch3	Q	G	T	K	V	E	I	K
Anti-Jag1	Q	G	T	K	V	E	I	K

FIG. 23B

Antibody	Heavy Chain Sequences	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Anti-Notch2		E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A
Anti-Notch1		E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A
Anti-Notch3		E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A
Anti-Jag1		E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R	L	S	C	A

									Kabat - CDR H1															
	24	25	26	27	28	29	30	31	32	33	34	35	35A	35B	36	37	38	39	41	41	42	43	44	
Anti-Notch2	A	S	G	Y	S	F	T	S	Y	G	M	S	.	.	W	V	R	Q	A	P	G	K	G	
Anti-Notch1	A	S	G	F	T	F	S	S	Y	W	I	H	.	.	W	V	R	Q	A	P	G	K	G	
Anti-Notch3	A	S	G	F	T	F	S	N	Y	W	M	S	.	.	W	V	R	Q	A	P	G	K	G	
Anti-Jag1	A	S	G	F	T	F	S	N	Y	G	I	H	.	.	W	V	R	Q	A	P	G	K	G	

													Kabat - CDR H2											
	45	46	47	48	49	50	51	52	52A	52B	52C	53	54	55	56	57	58	59	60	61	62	63	64	65
Anti-Notch2	L	E	W	V	S	Y	I	Y	P	.	.	Y	S	G	A	T	Y	Y	A	D	S	V	K	G
Anti-Notch1	L	E	W	V	A	R	I	N	P	.	.	P	N	R	S	N	Q	Y	A	D	S	V	K	G
Anti-Notch3	L	E	W	V	G	A	I	S	S	.	.	S	G	S	S	T	Y	Y	A	D	S	V	K	G
Anti-Jag1	L	E	W	V	G	W	I	T	G	.	.	N	G	G	Y	S	D	Y	A	D	S	V	K	G

	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	82A	82B	82C	83	84	85	86
Anti-Notch2	R	F	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D
Anti-Notch1	R	F	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D
Anti-Notch3	R	F	T	I	S	R	D	N	S	K	N	T	L	Y	L	Q	M	N	S	L	R	A	E	D
Anti-Jag1	R	F	T	I	S	A	D	T	S	K	N	T	A	Y	L	Q	M	N	S	L	R	A	E	D

FIG. 24A

Antibody	Heavy Chain Sequences	87	88	89	90	91	92	93	94	95	96	97	98	99	100	100A	100B	100C	100D	100E	100F	100G	100H	100I	100J
								Kabat - CDR H3																	
Anti-Notch2		T	A	V	Y	Y	C	A	R	H	S	G	Y	Y	R	I	S	S	A	.	.	.	.	.	.
Anti-Notch1		T	A	V	Y	Y	C	A	R	G	S	G	F	R	W	V	.	.	.	.	.	.	.	.	.
Anti-Notch3		T	A	V	Y	Y	C	A	R	Q	Y	Y	R	D	.	.	.	.	.	.	.	.	.	.	.
Anti-Jag1		T	A	V	Y	Y	C	A	R	A	G	S	W	.	.	.	.	.	.	.	.	.	.	.	.

Antibody	100K	100L	100M	101	102	103	104	105	106	107	108	109	110	111	112	113
Anti-Notch2	.	.	M	D	V	W	G	Q	G	T	L	V	T	V	S	S
Anti-Notch1	.	.	M	D	Y	W	G	Q	G	T	L	V	T	V	S	S
Anti-Notch3	.	.	M	D	V	W	G	Q	G	T	L	V	T	V	S	S
Anti-Jag1	.	.	F	A	Y	W	G	Q	G	T	L	V	T	V	S	S

FIG. 24B

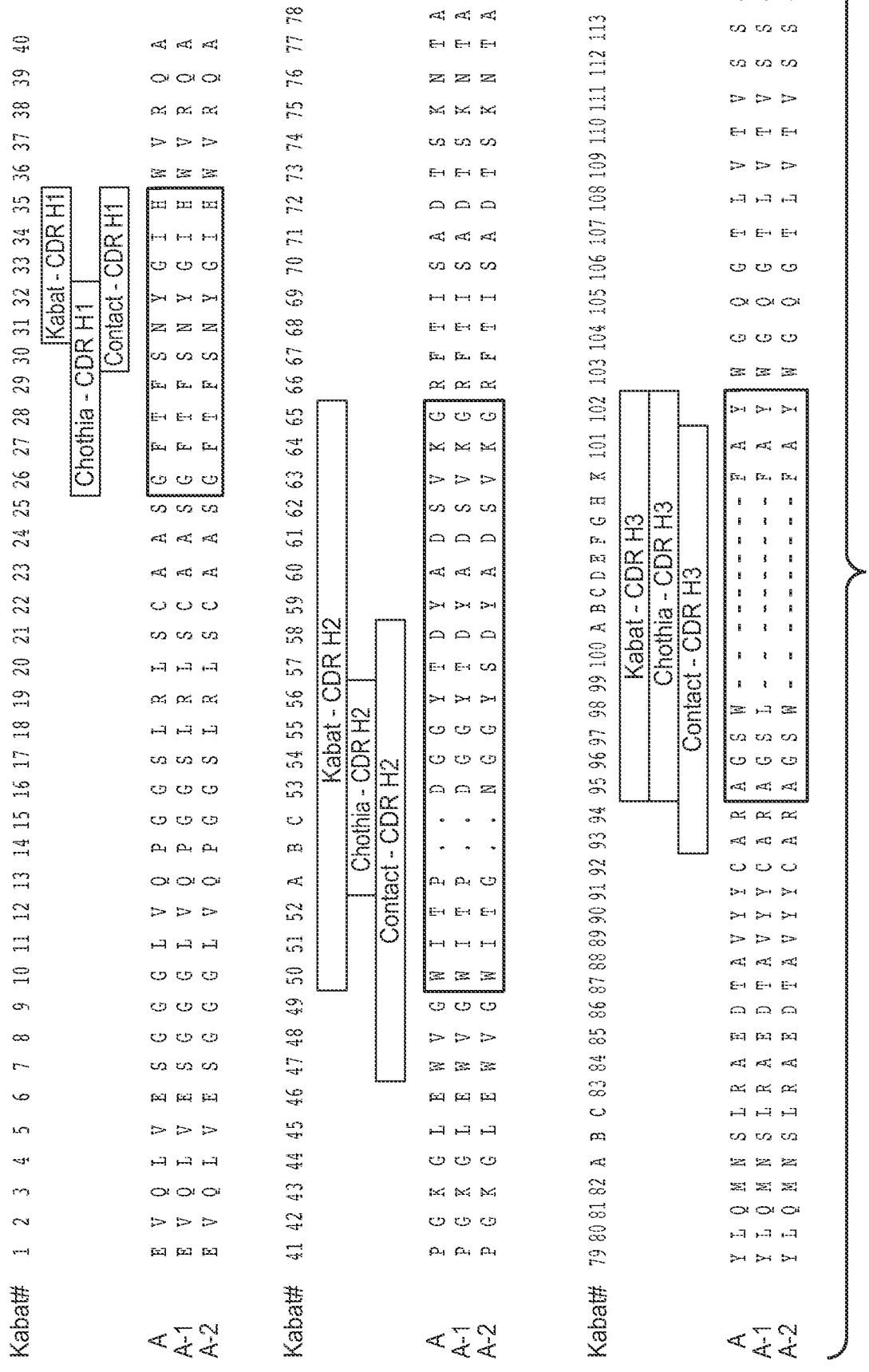

Kabat - CDR H1
Chothia - CDR H1
Contact - CDR H1
Kabat - CDR H2
Chothia - CDR H2
Contact - CDR H2
Kabat - CDR H3
Chothia - CDR H3
Contact - CDR H3
SEQ ID NO: 93
SEQ ID NO: 94
SEQ ID NO: 95

FIG. 25A

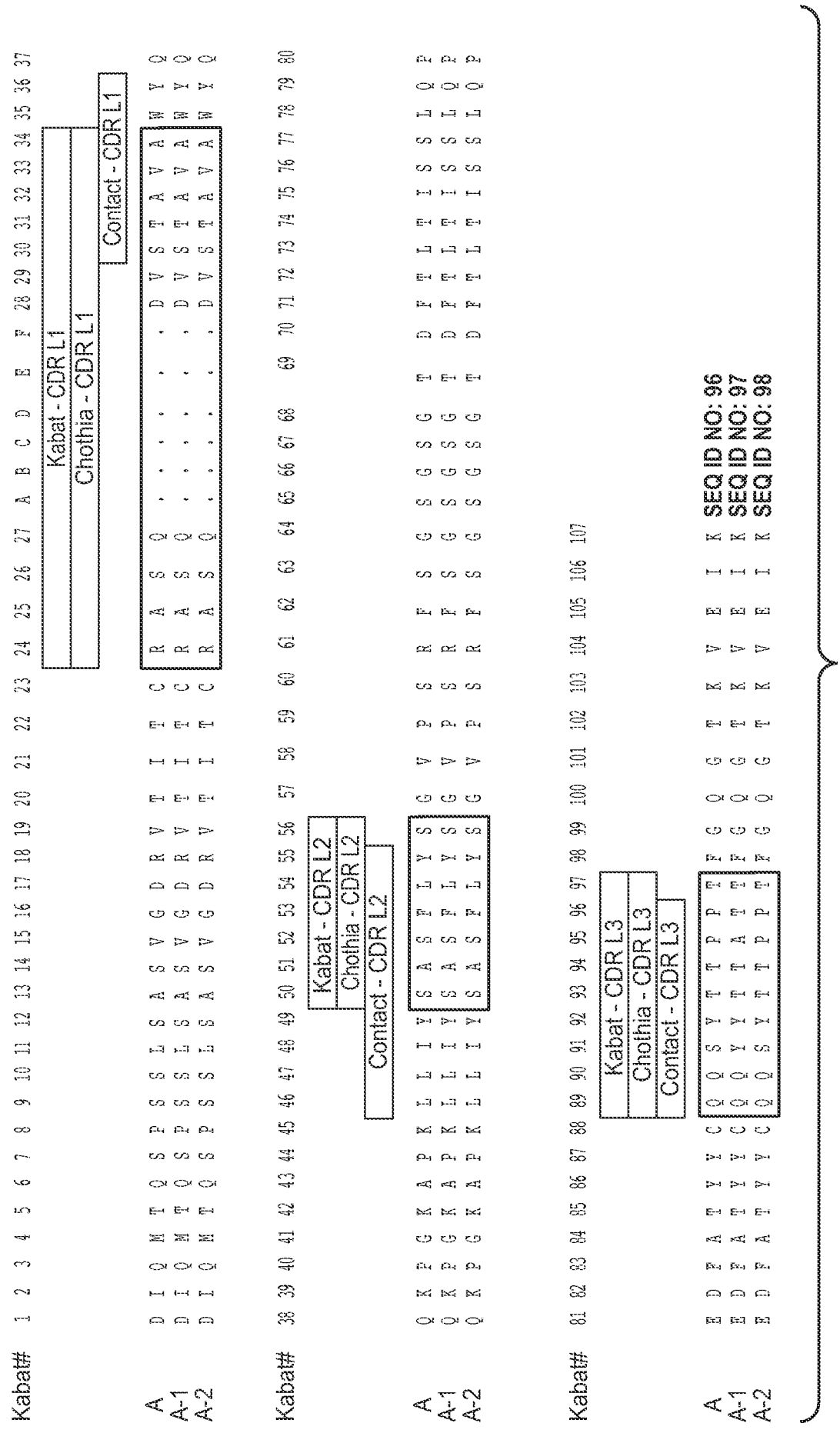

Kabat - CDR L1
Chothia - CDR L1
Contact - CDR L1
Kabat - CDR L2
Chothia - CDR L2
Contact - CDR L2
Kabat - CDR L3
Chothia - CDR L3
Contact - CDR L3
SEQ ID NO: 96
SEQ ID NO: 97
SEQ ID NO: 98

FIG. 25B