Homo sapiens delta-like 3(DLL3), transcript variant 1, mRNA

>gi|189163470|ref|NM_016941.3|

SEQ ID NO:1

AGATATAAGGCTTGGAAGCCAGCAGCTGCGACTCCCGAGACCCCCCCACCAGAAGGCCATGGTCTCCCCACGGATGT
CCGGGCTCCTCTCCCCAGACTGTGATCCTAGCGCTCATTTTCCTCCCCCAGACACGGCCCCGCTGGCGTCTTCGAGCTG
CAGATCCACTCTCTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCCGCGGTCCCCCTGCAGCGCCCGGCTCCCCCTGCCGCCT
CTTCTTCAGAGTCTGCCTGAAGCCTGGGCTCTCAGAGGAGGCCGCCGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGA
GTGCGCGCCGGACCCGGTCTACACCGAGCAGCCCGCGAGCGCCCGCTGATCTCCCACTGCCCGACGGCCTCTTGCAG
GTGCCCTTCCGGGACGCCTGGCCTGGCACCTTCTCTTTCATCATCGAAACCTGGAGAGAGGAGTTAGGAGACCAGAT
TGGAGAGGCCCGCCTGGAGCCTGCTGGCGCGTGGCTGGCAGGCGGCGCTTGGCAGCCCGGAGGCCCCGTGGGCCCGGG
ACATTCAGCGCGCAGGCGCCTGGGAGCTTCGCTTCTCGTACCGCGCCGCTGCGAGCCCGCCTGCTCGGACCGCG
TGCACGCGCCTCTCGCCGTCCGCCGGTGCGGTCCCGGGACTGCGCCCCTGCGCACCGCTCGAGGA
CGAATGTGAGGCGCCGCTGGAGCCTGCTGGCGCGTGGCTGGCAGGCGGCGCTTGGCAGCCCGGAGGCCCCGTGGGCCCGGG
GATGCCTAGAGGGCTGGACTGGACCCCTCTGCACGGTCCCTGTCTCCACCAGCAGCTGCCTCAGCCCCAGGGGCCCCG
TCCTCTGCTACCACCGGATGCCTTGTCCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCAGCTG
TAGTGAGACACCCAGGTCCTTTGAATGCACCTGCCCCGCGTGGGTTCTACGGGCTGCGGTGTGAGGTGAGCGGGGTGA
CATGTGCAGATGGACCCTGCTTCAACGGCGGCTTGTGTCGGGGGTGCAGACCCTGACTCTGCCTACATCTGCCAC
TGCCCACCCGGTTTCCAAGGCTCCAACTGTGCAGAAGAGGGTGGACCGGTGCAGCCATGCCGCAATGGCGG
ACTCTGCCTGGACCTGGGCCACGCCCTGCGCTGCCGCGCCGGCTTCCGCTGCGAGCACCGACC
TGGACGACTGCGCGGCCTGCGCTAACGCGCGCACCGTGTGTGAGGGCCGCGCGCACCGCTGCTCCTGC
GCGCTTGGGCTTCGGCGGCCGCCGACTGCCGCGACCCGTGCGCGCCGCGCCCCTGTGCTCACGGCGGCCG
CTGCTACGCCCACTTCTCCGGCCTCGTCTTGCGCTTGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCCAGTGC
ACCCCGACGGCGCAAGCGCCTTGCCCGCGGCCCTCAGGCCCGGGACCCTCAGCGCTACCTTTTGCCT
CCGGCTCTGGGACTGCTCGTGGCCCGCGGCGTGGCCCGGCGCTCTTGCTGGTCCACGTGCGCCCGTGGCCA
CTCCCAGGATGCTGGGTCTCGCTTGCTGGCTGGGACCCCCGGAGCCCGTCAGTCCACGCACTCCCGGATGCACTCAACA
ACCTAAGGACGCAGGAGGGTTCCGGGGATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCCT
CAAGGGATTTATGTCATATCTGCTCCTTCCATCTACGCTCCGGAGGTAGCGACGCCCCTTTTCCCCCCGCTACACAC
TGGGCGCGCTGGGCAGAGGCAGCACCTGCTTTTTCCCTACCCTTCCTCGATTCTGTCCGTGAAATGAATTGGGTAGA
GTCTCTGGAAGGTTTTAAGCCCATTTTCAGTTCTAACTTTACTTTCATCCCTCTTATCGTTTTGAG
CTACCTGCCATCTTCTCTTTGAAAAACCTATGGGCTTGAGGAGGTCACGATGCCGACTCCGCCAGAGCTTTTCCACT
GATTGTACTCAGCGGGGAGGGCAGAGGGCAGCCTCTCTAATGCTTCCTACTCATTTTGTTTCTAGGCC
TGACGCGTCTCCTCCATCCGCACCTGGAGTCAGAGCGTGGATTTTTGTATTTGCTCGGTGGTGCCCAGTCTCTGCCC
CAGAGGCTTTGGAGTTCAATCTTTGAAGGGTGTCTGGGGGAACTTTACTGTTGCAAGTTGTAAATAATGGTTATTTA
TATCCTATTTTTTTCTCACCCCATCTCTCTAGAAACACCTATAAAGGCTATTATTGTGATCAGTTTTGACTAACAAAA

FIG. 1A

Homo sapiens delta-like 3(DLL3), transcript variant 2, mRNA
>gi|189163469|ref|NM_203486.2|

SEQ ID NO. 2

AGATATAAGGCTTGGAAGCCAGCAGCTGCGACTCCCGAGACCCCCCCACCAGAAGGCCATGGTCTCCCCACGGATGTC
CGGGCTCCTCTCCCAGACTGTGATCCTAGCGCTCATTTTCCTCCCCCAGACACGGCCCGCTGGCGTCTTCGAGCTGCA
GATCCACTCTTTCGGGCCGGGTCCAGGCCCTGGGGCCCCGCGGTCCCCCTGCAGCGCCCGGCTCCCCTGCCGCCTCTT
CTTCAGAGTCTGCCTGAAGCCTGGGCTCTCAGAGGAGGCCGCCGAGTCCCCGTGCGCCCTGGGCGCGGCGCTGAGTGC
GCGCGGACCGGTCTACACCGAGCAGCCCGGAGCGCCCGCGCCTGATCTCCCACTGCCCGACGGCCTCTTGCAGGTGCC
CTTCCGGGACGCCTGGCCTGGCACCTTCTCTTTCATCATCGAAACCTGGAGAGAGGAGTTAGGAGACCAGATTGGAGG
GCCCGCCTGGAGCCTGCTGGCGCGCGTGGCTGGCAGGCGGCGCTTGGCAGCCGGAGGCCCGTGGGCCCGGGACATTCA
GCGCGCAGGCGCCTGGGAGCTGCGCTTCTCGTACCGCGCGCGCTGCGAGCCGCCTGCCGTCGGGACCGCGTGCACGCG
CCTCTGCCGTCCGCGCAGCGCCCCCTCGCGGTGCGGTCCGGGACTGCGCCCCTGCGCACCGCTCGAGGACGAATGTGA
GGCGCCGCTGGTGTGCCGAGCAGGCTGCAGCCCTGAGCATGGCTTCTGTGAACAGCCCGGTGAATGCCGATGCCTAGA
GGGCTGGACTGGACCCCTCTGCACGGTCCCTGTCTCCACCAGCAGCTGCCTCAGCCCCAGGGGCCCGTCCTCTGCTAC
CACCGGATGCCTTGTCCCTGGGCCTGGGCCCTGTGACGGGAACCCGTGTGCCAATGGAGGCAGCTGTAGTGAGACACC
CAGGTCCTTTGAATGCACCTGCCCGCGTGGGTTCTACGGGCTGCGGTGTGAGGTGAGCGGGGTGACATGTGCAGATGG
ACCCTGCTTCAACGGCGGCTTGTGTGTCGGGGGTGCAGACCCTGACTCTGCCTACATCTGCCACTGCCCACCCGGTTT
CCAAGGCTCCAACTGTGAGAAGAGGGTGGACCGGTGCAGCCTGCAGCCATGCCGCAATGGCGGACTCTGCCTGGACCT
GGGCCACGCCCTGCGCTGCCGCTGCCGCGCCGGCTTCGCGGGTCCTCGCTGCGAGCACGACCTGGACGACTGCGCGGG
CCGCGCCTGCGCTAACGGCGGCACGTGTGTGGAGGGCGGCGGCGCGCACCGCTGCTCCTGCGCGCTGGGCTTCGGCGG
CCGCGACTGCCGCGAGCGCGCGGACCCGTGCGCCGCGCGCCCCTGTGCTCACGGCGGCCGCTGCTACGCCCACTTCTC
CGGCCTCGTCTGCGCTTGCGCTCCCGGCTACATGGGAGCGCGGTGTGAGTTCCCAGTGCACCCCGACGGCGCAAGCGC
CTTGCCCCGCGGCCCCGCCGGGCCTCAGGCCCGGGGACCCTCAGCGCTACCTTTTGCCTCCGGCTCTGGGACTGCTCGT
GGCCGCGGGCGTGGCCGGCGCTGCGCTCTTGCTGGTCCACGTGCGCCGCCGTGGCCACTCCCAGGATGCTGGGTCTCG
CTTGCTGGCTGGGACCCCGGAGCCGTCAGTCCACGCACTCCCGGATGCACTCAACAACCTAAGGACGCAGGAGGGTTC
CGGGGATGGTCCGAGCTCGTCCGTAGATTGGAATCGCCCTGAAGATGTAGACCCTCAAGGGATTTATGTCATATCTGC
TCCTTCCATCTACGCTCGGGAGGCCTGACGCGTCTCCTCCATCCGCACCTGGAGTCAGAGCGTGGATTTTTGTATTTG
CTCGGTGGTGCCCAGTCTCTGCCCCAGAGGCTTTGGAGTTCAATCTTGAAGGGGTGTCTGGGGGAACTTTACTGTTGC
AAGTTGTAAATAATGGTTATTTATATCCTATTTTTTCTCACCCCATCTCTCTAGAAACACCTATAAAGGCTATTATTG
TGATCAGTTTTGACTAACAAAAAA

FIG. 1B

Homo sapiens delta-like protein 3 (DLL3)isoform 1 precursor
>gi|83932641|ref|NP_058637.1|

SEQ ID NO. 3

MVSPRMSGLLSQTVILALIFLPQTRPAGVFELQIHSFGPGPGAPRSPCSARLPCRLFFRVCLKPGLSE
EAAESPCALGAALSARGPVYTEQPGAPAPDLPLPDGLLQVPFRDAWPGTFSFIIETWREELGDQIGGPAW
SLLARVAGRRRLAAGGPWARDIQRAGAWELRFSYRARCEPPAVGTACTRLCRPRSAPSRCGPGLRPCAPL
EDECEAPLVCRAGCSPEHGFCEQPGECRCLEGWTGPLCTVPVSTSSCLSPRGPSSATTGCLVPGPGPCDG
NPCANGGSCSETPRSFECTCPRGFYGLRCEVSGVTCADGPCFNGGLCVGGADPDSAYICHCPPGFQGSNC
EKRVDRCSLQPCRNGGLCLDLGHALRCRCRAGFAGPRCEHDLDDCAGRACANGGTCVEGGGAHRCSCALG
FGGRDCRERADPCAARPCAHGGRCYAHFSGLVCACAPGYMGARCEFPVHPDGASALPAAPPGLRPGDPQR
YLLPPALGLLVAAGVAGAALLLVHVRRRGHSQDAGSRLLAGTPEPSVHALPDALNNLRTQEGSGDGPSSS
VDWNRPEDVDPQGIYVISAPSIYAREVATPLFPPLHTGRAGQRQHLLFPYPSSILSVK

FIG. 1C

Homo sapiens delta-like protein 3 (DLL3) isoform 2 precursor
>gi|45243561|ref|NP_982353.1|

SEQ ID NO. 4

MVSPRMSGLLSQTVILALIFLPQTRPAGVFELQIHSFGPGPGAPRSPCSARLPCRLFFRVCLKPGLSE
EAAESPCALGAALSARGPVYTEQPGAPAPDLPLPDGLLLQVPFRDAWPGTFSFIIETWREELGDQIGGPAW
SLLARVAGRRRLAAGGPWARDIQRAGAWELRFSYRARCEPPAVGTACTRLCRPRSAPSRCGPGLRPCAPL
EDECEAPLVCRAGCSPEHGFCEQPGECRCLEGWTGPLCTVPVSTSSCLSPRGPSSATTGCLVPGPGPCDG
NPCANGGSCSETPRSFECTCPRGFYGLRCEVSGVTCADGPCFNGGLCVGGADPDSAYICHCPPGFQGSNC
EKRVDRCSLQPCRNGGLCLDLGHALRCRCRAGFAGPRCEHDLDDCAGRACANGGTCVEGGGAHRCSCALG
FGGRDCRERADPCAARPCAHGGRCYAHFSGLVCACAPGYMGARCEFPVHPDGASALPAAPPGLRPGDPQR
YLLPPALGLLVAAGVAGAALLLVHVRRRGHSQDAGSRLLAGTPEPSVHALPDALNNLRTQEGSGDGPSSS
VDWNRPEDVDPQGIYVISAPSIYAREA

FIG. 1D

Alignment of two human DLL3 isoforms (NP_058637 = var 1; NP_928353 = var 2)

```
                    1                                                                                80
NP_058637     (1)   MVSPRMSGLLSQTVILALIFLPQTRPAGVFELQIHSFGPGPGPGAPRSPCSARLPCRLFFRVCLKPGLSEEAAESPCALG
NP_982353     (1)   MVSPRMSGLLSQTVILALIFLPQTRPAGVFELQIHSFGPGPGPGAPRSPCSARLPCRLFFRVCLKPGLSEEAAESPCALG

                    81                                                                               160
NP_058637    (81)   AALSARGPVYTEQPGAPAPDLPLPDGLLQVPFRDAWPGTFSFIIETWREELGDQIGGPAWSLLARVAGRRRLAAGGPWAR
NP_982353    (81)   AALSARGPVYTEQPGAPAPDLPLPDGLLQVPFRDAWPGTFSFIIETWREELGDQIGGPAWSLLARVAGRRRLAAGGPWAR

                   161                                                                               240
NP_058637   (161)   DIQRAGAWELRFSYRARCEPPAVGTACTRLCRPRSAPSRCGPGLRPCAPLEDECEAPLVCRAGCSPEHGFCEQPGECRCL
NP_982353   (161)   DIQRAGAWELRFSYRARCEPPAVGTACTRLCRPRSAPSRCGPGLRPCAPLEDECEAPLVCRAGCSPEHGFCEQPGECRCL

                   241                                                                               320
NP_058637   (241)   EGWTGPLCTVPVSTSSCLSPRGPSSATTGCLVPGPGPCDGNPCANGGSCSETPRSFECTCPRGFYGLRCEVSGVTCADGP
NP_982353   (241)   EGWTGPLCTVPVSTSSCLSPRGPSSATTGCLVPGPGPCDGNPCANGGSCSETPRSFECTCPRGFYGLRCEVSGVTCADGP

                   321                                                                               400
NP_058637   (321)   CFNGGLCVGGADPDSAYICHCPPGFQGSNCEKRVDRCSLQPCRNGGLCLDLGHALRCRCRAGFAGPRCEHDLDDCAGRAC
NP_982353   (321)   CFNGGLCVGGADPDSAYICHCPPGFQGSNCEKRVDRCSLQPCRNGGLCLDLGHALRCRCRAGFAGPRCEHDLDDCAGRAC

                   401                                                                               480
NP_058637   (401)   ANGGTCVEGGGAHRCSCALGFGGRDCRERADPCAARPCAHGGRCYAHFSGLVCACAPGYMGARCEFPVHPDGASALPAAP
NP_982353   (401)   ANGGTCVEGGGAHRCSCALGFGGRDCRERADPCAARPCAHGGRCYAHFSGLVCACAPGYMGARCEFPVHPDGASALPAAP

                   481                                                                               560
NP_058637   (481)   PGLRPGDPQRYLLPPALGLLVAAGVAGAALLLVHVRRRGHSQDAGSRLLAGTPEPSVHALPDALNNLRTQEGSGDGPSSS
NP_982353   (481)   PGLRPGDPQRYLLPPALGLLVAAGVAGAALLLVHVRRRGHSQDAGSRLLAGTPEPSVHALPDALNNLRTQEGSGDGPSSS

                   561                                                 618
NP_058637   (561)   VDWNRPEDVDPQGIYVISAPSIYAREVATPLFPPLHTGRAGQRQHLLFPYPSSILSVK                SEQ ID NO. 3
NP_982353   (561)   VDWNRPEDVDPQGIYVISAPSIYAREA----------------------------                SEQ ID NO. 4
```

FIG. 1E

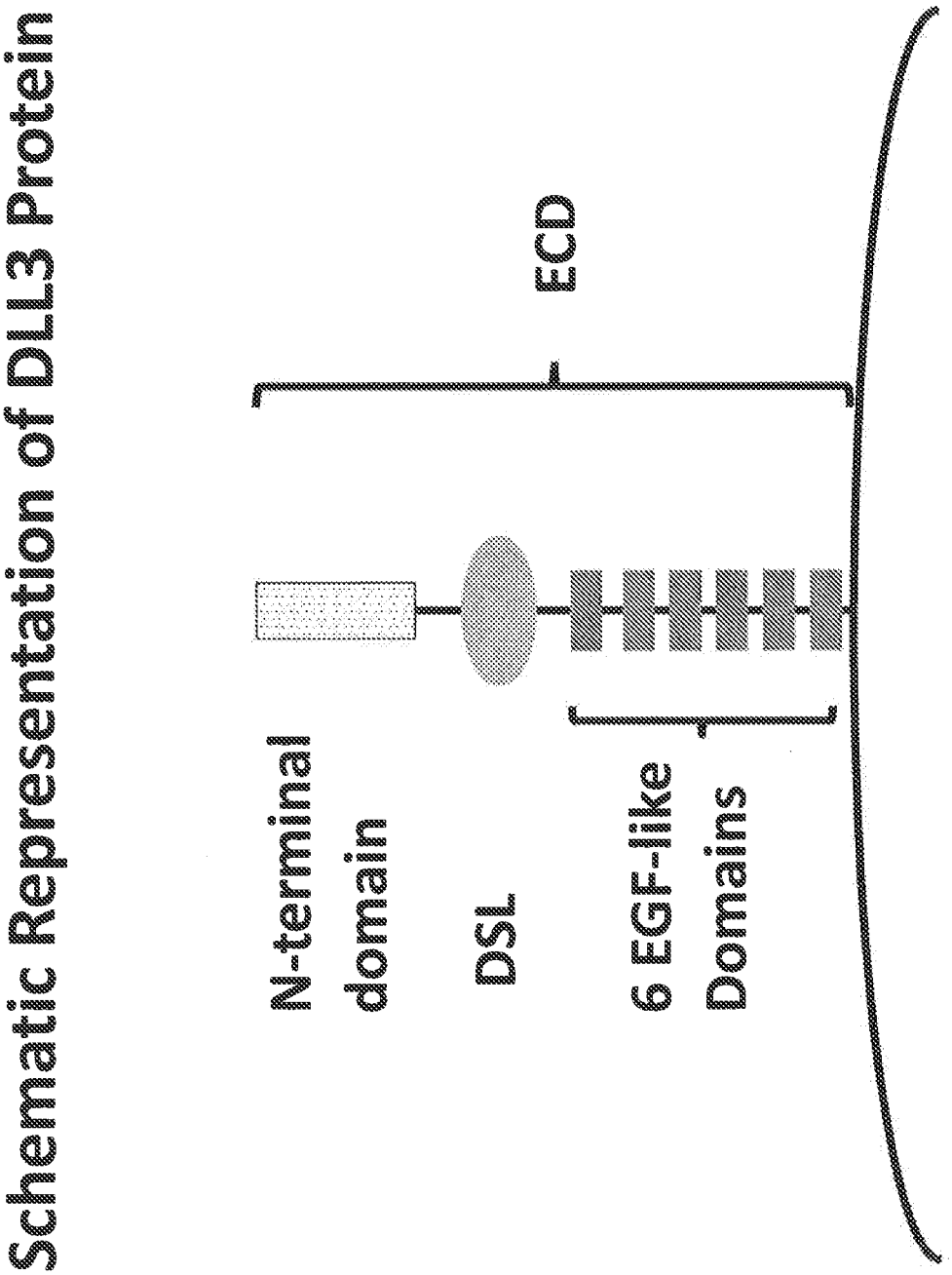

Schematic Representation of DLL3 Protein
ECD
N-terminal domain
DSL
6 EGF-like Domains
Tumor Cell

FIG. 1F

Percent Identity Between Homo sapiens DLL Family Member Proteins

DLL Family Homo sapiens	Complete protein		
	DLL1 (NP_005609)	DLL3v1 (NP_058637)	DLL3v2 (NP_982353)
DLL3v1 (NP_058637)	28.8%		
DLL3v2 (NP_982353)	28.0%	94.8%	
DLL4 (NP_061947)	48.1%	28.0%	28.8%

DLL Family Homo sapiens	ECD		
	DLL1 (NP_005609)	DLL3v1 (NP_058637)	DLL3v2 (NP_982353)
DLL3v1 (NP_058637)	33.8%		
DLL3v2 (NP_982353)	33.8%	100.0%	
DLL4 (NP_061947)	52.0%	32.6%	32.6%

FIG. 2A

Percent Identity Between DLL3 Proteins From Various Species

DLL3	rhesus (XP_001089937)	mouse (NP_031892)	rat (NP_446118)
human	95.7% (v1)	82.6% (v2)	81.5% (v2)
mouse (NP_031892)			93.9%

FIG. 2B

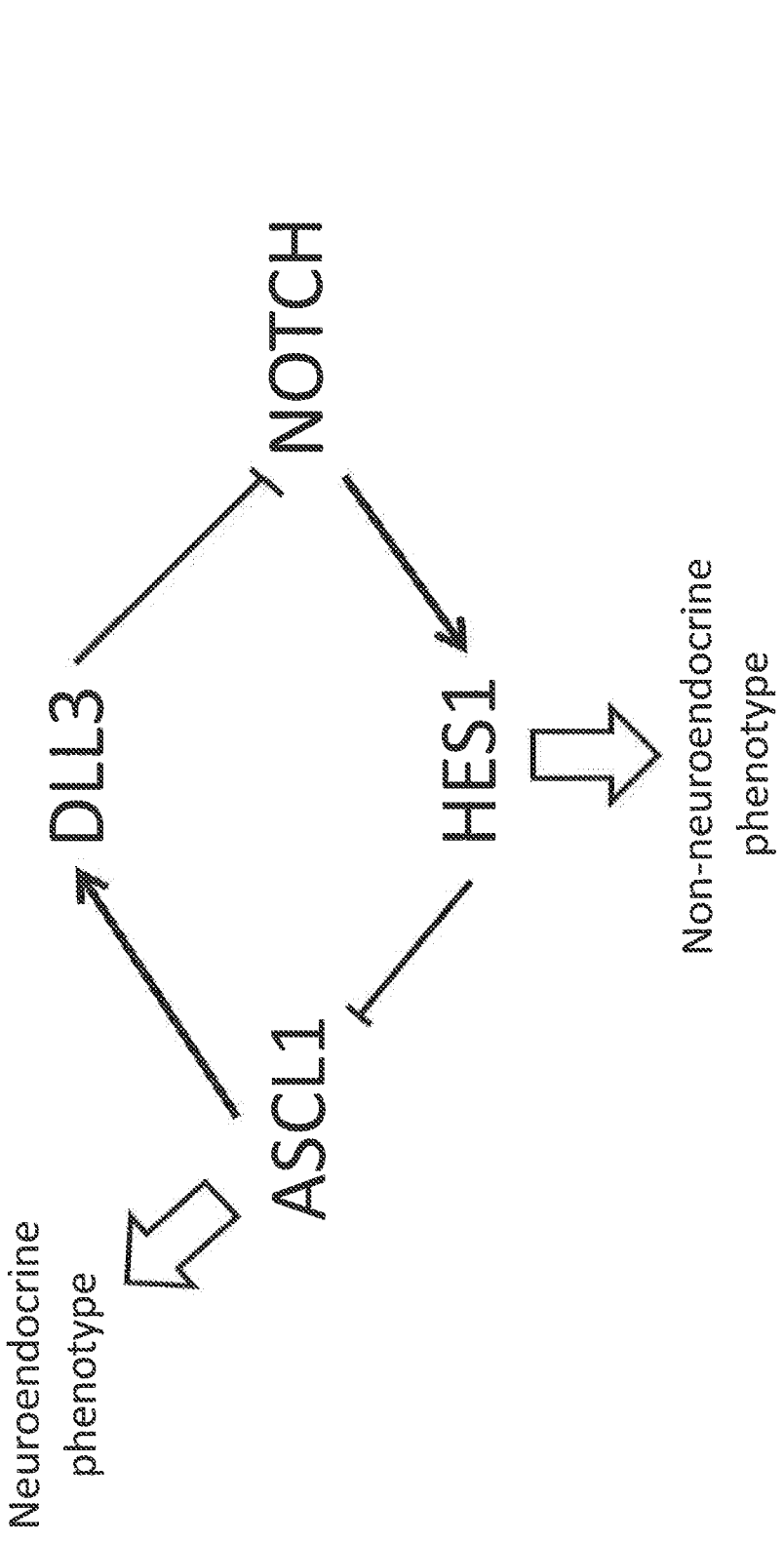

Genetic Circuit Involved in Neuroendocrine Cell Fate Choice
Neuroendocrine phenotype
ASCL1
DLL3
NOTCH
HES1
Non-neuroendocrine phenotype

FIG. 3

Relative Expression Values for Selected mRNA Transcripts in Various Samples as Determined by Whole Transcriptome Sequencing

	DLL1	DLL3	DLL4	NOTCH1	NOTCH2	NOTCH3	NOTCH4	ASCL1	NCAM1	CHGA	HES1	HES6	HEY1
LU37p3 - LCNEC	86.2	93.7	4.5	0.1	14.4	7.8	0.7	2690.8	72.0	94.0	2.7	55.1	5.6
LU64p2 - SCLC	10.9	34.3	10.8	8.2	0.2	0.7	5.7	418.4	57.8	729.5	6.3	2605.8	2.0
LU73p1 - SCLC	176.1	237.6	16.6	4.2	0.0	33.0	79.7	1429.1	77.5	515.0	24.5	2270.8	33.9
LU86p3 - SCLC	4.7	11.9	12.2	18.7	176.8	14.5	0.5	0.4	284.9	17.7	13.9	285.2	9.9
LU95p2 - SCLC	2.4	16.0	1.6	2.1	0.4	8.5	12.2	273.2	171.5	18.2	2.8	72.6	9.3
LU137p0 -LU_Ad	1.8	0.0	4.3	10.6	247.7	27.5	0.4	0.0	0.0	0.0	54.6	1.5	1.7
LU146p0 - LU_Ad	0.0	0.0	0.3	5.6	56.8	37.9	3.9	0.0	0.8	0.0	42.8	0.8	0.3
LU153p0 - LU_Ad	0.8	0.0	5.7	8.1	195.1	8.0	6.5	0.2	4.4	0.0	4.8	0.2	1.4
LU49p4 -- LU_SCC	2.6	0.7	0.0	7.6	104.2	0.0	1.3	0.0	0.0	0.0	62.1	4.3	0.0
LU70p4 - LU_SCC	4.7	0.0	0.8	12.6	123.2	1.8	0.1	0.0	0.0	0.3	42.3	2.1	0.0
LU76p5 - LU_SCC	0.8	0.0	4.8	20.0	32.5	0.1	0.0	3.4	0.3	0.3	23.0	0.8	0.0
OV26p3 - OV	34.2	65.4	15.7	0.0	101.0	17.4	0.6	2253.7	128.8	23.1	4.3	35.1	7.1
OV100p0 - OV	0.0	0.5	0.4	3.6	154.2	16.3	0.5	0.0	2.0	0.0	1.0	0.0	17.3
OV45p3 - OV	1.7	1.9	0.1	14.9	53.2	84.5	2.7	0.0	60.4	0.1	14.6	2.4	1.0
OV55p5 - OV	0.3	0.2	0.0	31.0	139.8	71.7	1.4	0.0	11.4	0.0	19.4	1.9	6.7
OV72METp0 - OV	0.0	0.1	0.2	1.6	201.1	46.8	0.2	0.3	34.5	0.1	17.1	1.9	2.0
OV91METp0 - OV	0.3	1.6	0.1	10.5	240.1	345.3	2.3	0.0	3.9	0.0	31.7	1.2	1.0
Normal Lung 1	1.7	0.0	5.7	8.2	85.9	33.1	11.4	0.4	3.4	0.0	13.8	0.1	11.4
Normal Lung 2	17.0	0.1	8.8	24.0	81.5	54.0	62.8	5.3	4.6	0.4	23.2	2.4	43.0
Normal Lung 3	26.9	0.2	41.5	145.4	25.6	239.5	91.7	0.8	1.8	1.3	11.9	8.1	40.2
Normal Lung 4	0.2	0.0	6.0	11.8	81.5	40.4	15.8	0.0	1.2	0.0	11.4	0.3	14.1
Normal Ovary	0.3	0.0	5.1	7.8	250.9	44.1	5.1	0.6	125.5	0.2	8.5	0.7	0.4

FIG. 4A

Relative Expression Values for DLL3 Transcripts in Various Samples as Determined by Whole Transcriptome Sequencing

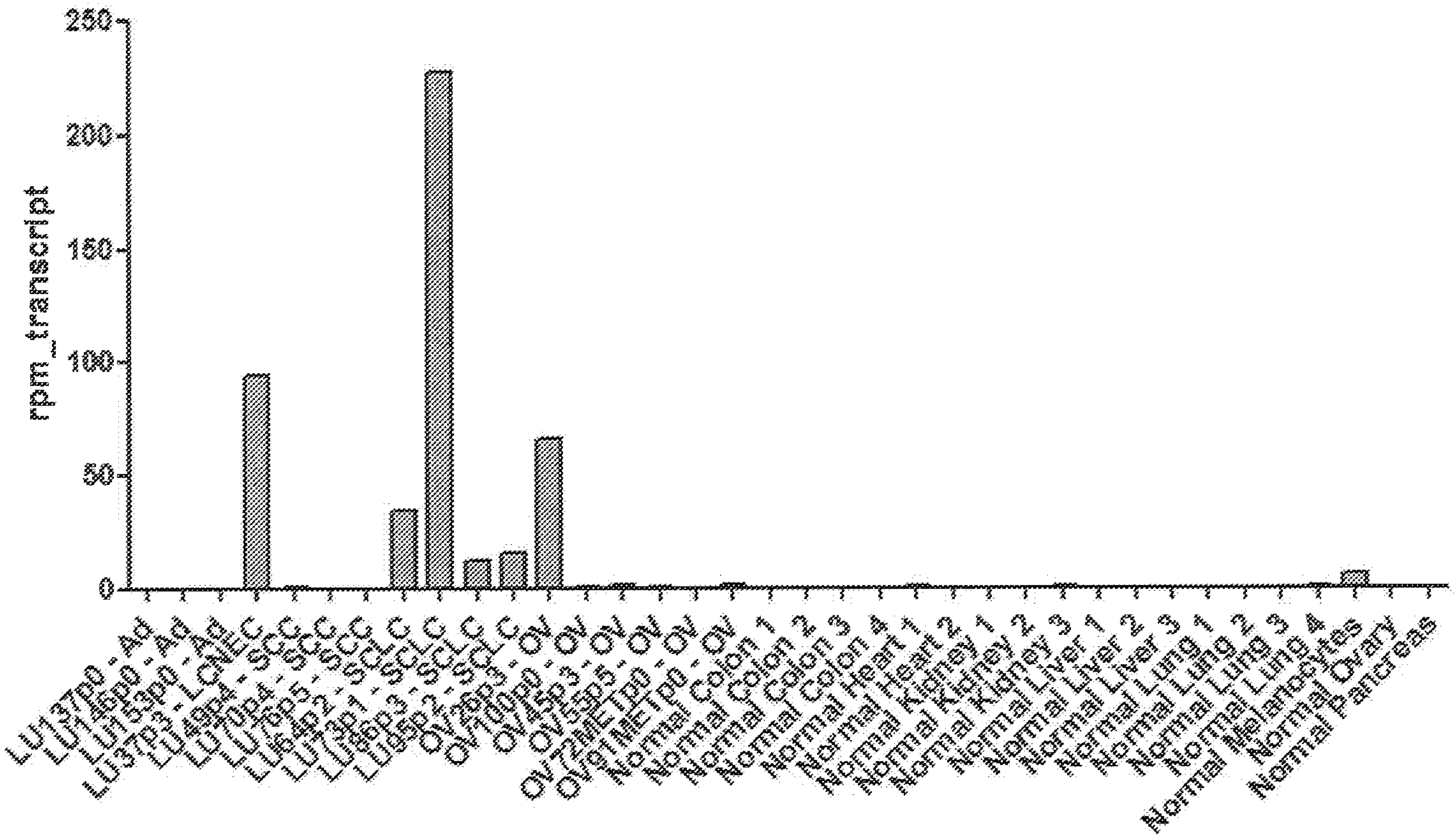


FIG. 4B

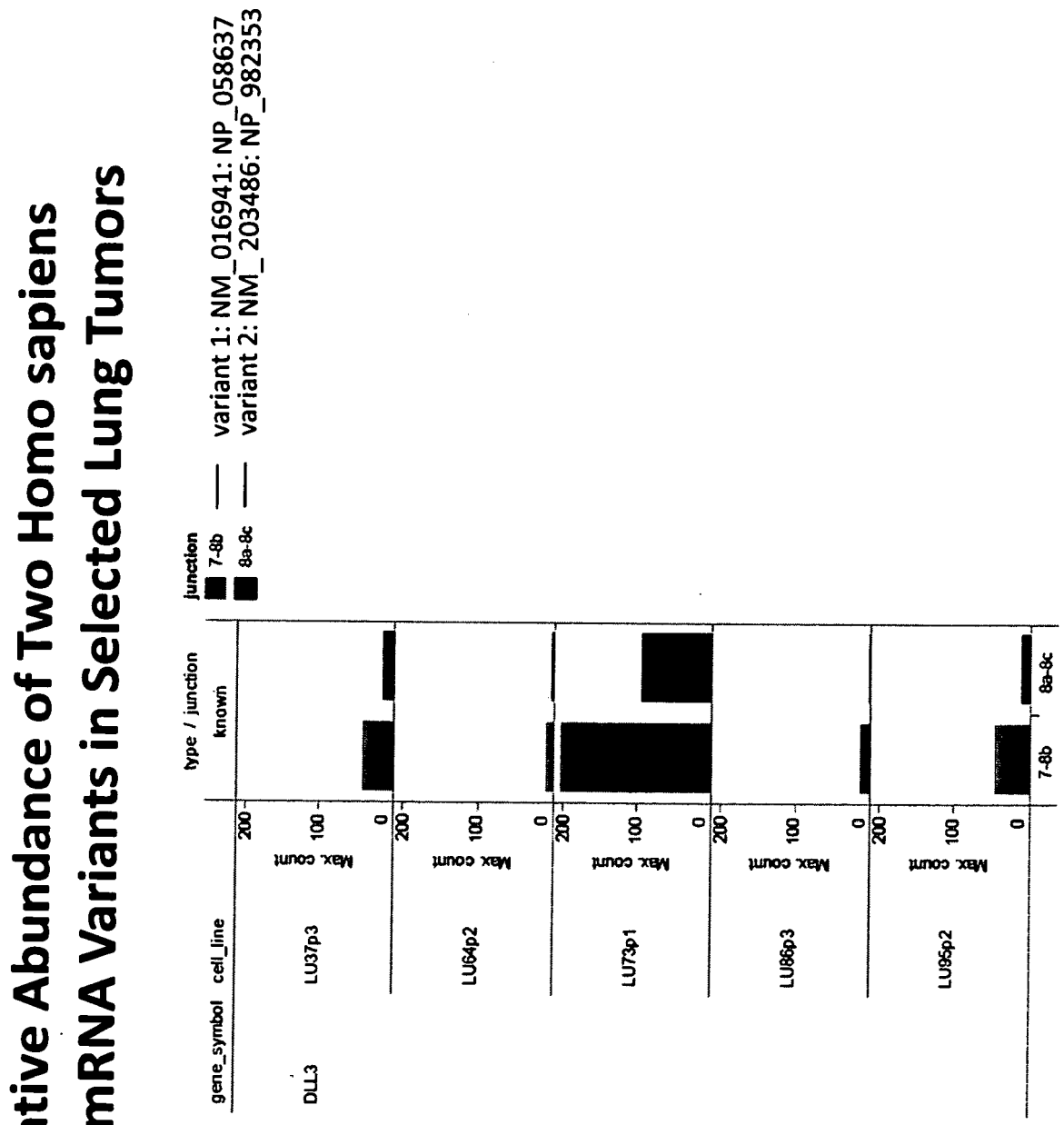

Relative Abundance of Two Homo sapiens
DLL3 mRNA Variants in Selected Lung Tumors
junction
7-8b
8a-8c
variant 1: NM_016941: NP_058637
variant 2: NM_203486: NP_982353
type / junction
known
gene_symbol
cell_line
DLL3
LU37p3
LU64p2
LU73p1
LU86p3
LU95p2
Max. count
200
100
0
7-8b
8a-8c

FIG. 5

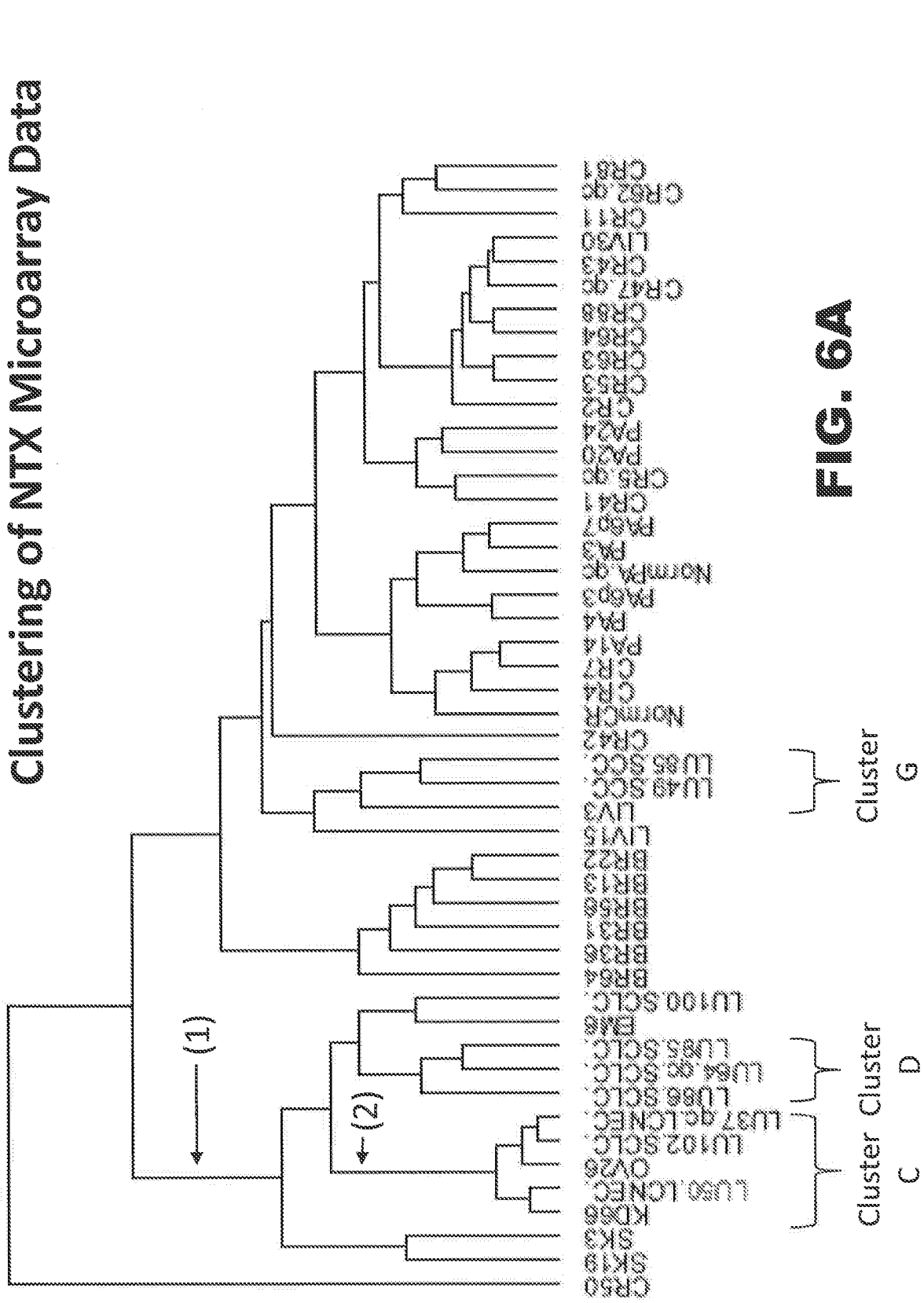

Unbiased Pearson Spearman Hierarchical
Clustering of NTX Microarray Data
CR50
SK19
SK3
KD58
LU30_LCNEC
OV28
LU02_SCLC
LU37_adLCNEC
LU66_SCLC
LU84_GC_SCLC
LU85_SCLC
BA46
LU190_SCLC
BR64
BR36
BR31
BR56
BR13
BR22
LUV15
LUV3
LU49_SCC
LU85_SCC
CR42
NormCR
CR24
CR27
PA14
PR4
PM93
NormPM_qc
PM3
PM97
CR41
CR5_qc
PA20
PA24
CR2
CR53
CR63
CR64
CR58
CR47_qc
CR43
LUV30
CR11
CR52_qc
CR61
(1)
(2)
Cluster C
Cluster D
Cluster G

FIG. 6A

Average Normalized Intensity Values for Common Markers of Neuroendocrine Phenotype

			Cluster C					Cluster D			Cluster G	
	Gene Symbol	Median (48 samples)	KD66	LU50(LCNEC)	OV26	LU102(SCLC)	LU37 (LCNEC)	LU86(SCLC)	LU64(SCLC)	LU95(SCLC)	LU49(SCC)	LU85(SCC)
Achaete-scute complex homolog 1	ASCL1	9	6589	8238	9382	12169	9664	11	3390	10298	8	5
Calcitonin	CALCA	73	16138	8352	10035	14633	14547	70	24	2477	52	39
CGRP	CALCB	143	2534	1147	1547	2584	2757	13189	433	1264	65	81
CD117, Kit receptor	KIT	343	5978	4907	3561	6416	6254	12760	11215	15187	34	301
Chromogranin A	CHGA	53	6167	8902	12848	8206	7408	7950	19869	35715	1249	2364
Chromogranin B	CHGB	22	1615	2152	1516	1456	1242	2365	1362	4151	32	24
Dopa decaroxylase	DDC	2441	21606	24512	23595	31824	25707	1498	4234	9297	134	286
Gamma (Neural) Enolase	ENO2	1910	2054	1881	1911	1573	1262	4043	4737	11120	2472	2241
GDNF family receptor alpha 1	GFRA1	9	263	29	37	146	133	90	4	6	9	4
CD56	NCAM1	82	551	875	801	999	727	2618	2519	3296	425	106
PGP9.5	UCHL1	415	16415	13168	12862	24212	19977	13414	9749	25732	122	8251
Proopiomelanocortin	POMC	94	751	427	590	750	657	66	560	5204	213	160
Somatostatin	SST	67	27000	1316	19913	5869	12189	35	9	62	90	28
Somatostatin Receptor 5	SSTR5	613	733	906	875	636	633	907	344	622	918	401
Synaptophysin	SYP	19	15	15	9	17	15	27	53	91	11	19
Thyroid Transcription Factor 1	NKX2-1	18	3137	3508	2734	5180	3315	1258	3585	2229	85	8

FIG. 6B

Average Normalized Intensity Values for Selected Genes in the Notch Pathway and ASCL1

		Cluster C					Cluster D			Cluster G	
	Median (48 samples)	KD66	LU50(LCNEC)	OV26	LU102(SCLC)	LU37(LCNEC)	LU86(SCLC)	LU64(SCLC)	LU95(SCLC)	LU49(SCC)	LU85(SCC)
ASCL1	9	6589	8238	9382	12169	9664	11	3390	10298	8	5
DLL1	51	348	565	406	497	179	218	98	514	29	120
DLL3	350	4584	3985	6232	5884	5233	1686	3137	5814	601	492
DLL4	614	601	445	592	301	280	763	198	673	357	469
HES1	670	128	129	160	92	82	551	137	335	2665	2024
HES6	117	196	361	481	416	279	5456	2716	3535	28	33
HEY1	89	86	101	116	103	77	1660	680	2502	3776	231
HEYL	87	157	132	128	148	132	2645	102	267	333	80
JAG1	630	159	114	110	95	111	743	521	311	9131	678
JAG2	125	335	529	398	420	247	324	513	611	159	153
NOTCH1	666	34	23	41	17	14	1039	381	202	4720	438
NOTCH2	26	6	11	12	16	12	105	11	1	37	5
NOTCH3	101	13	27	91	81	72	302	37	136	1474	322
NOTCH4	14	6	7	13	9	5	14	15	69	14	7
RBPJ	1289	1891	2255	1933	2717	2278	4502	2678	5167	1226	1029

FIG. 6C

Elevated Expression of
HES6 mRNA in Neuroendocrine Tumors

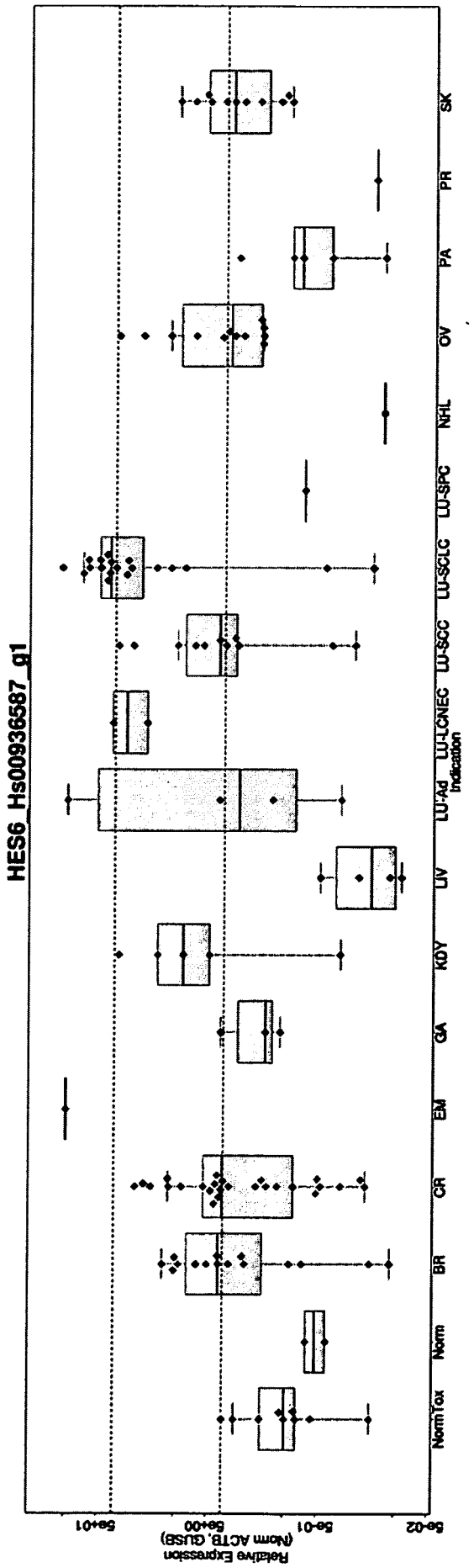


FIG. 6D

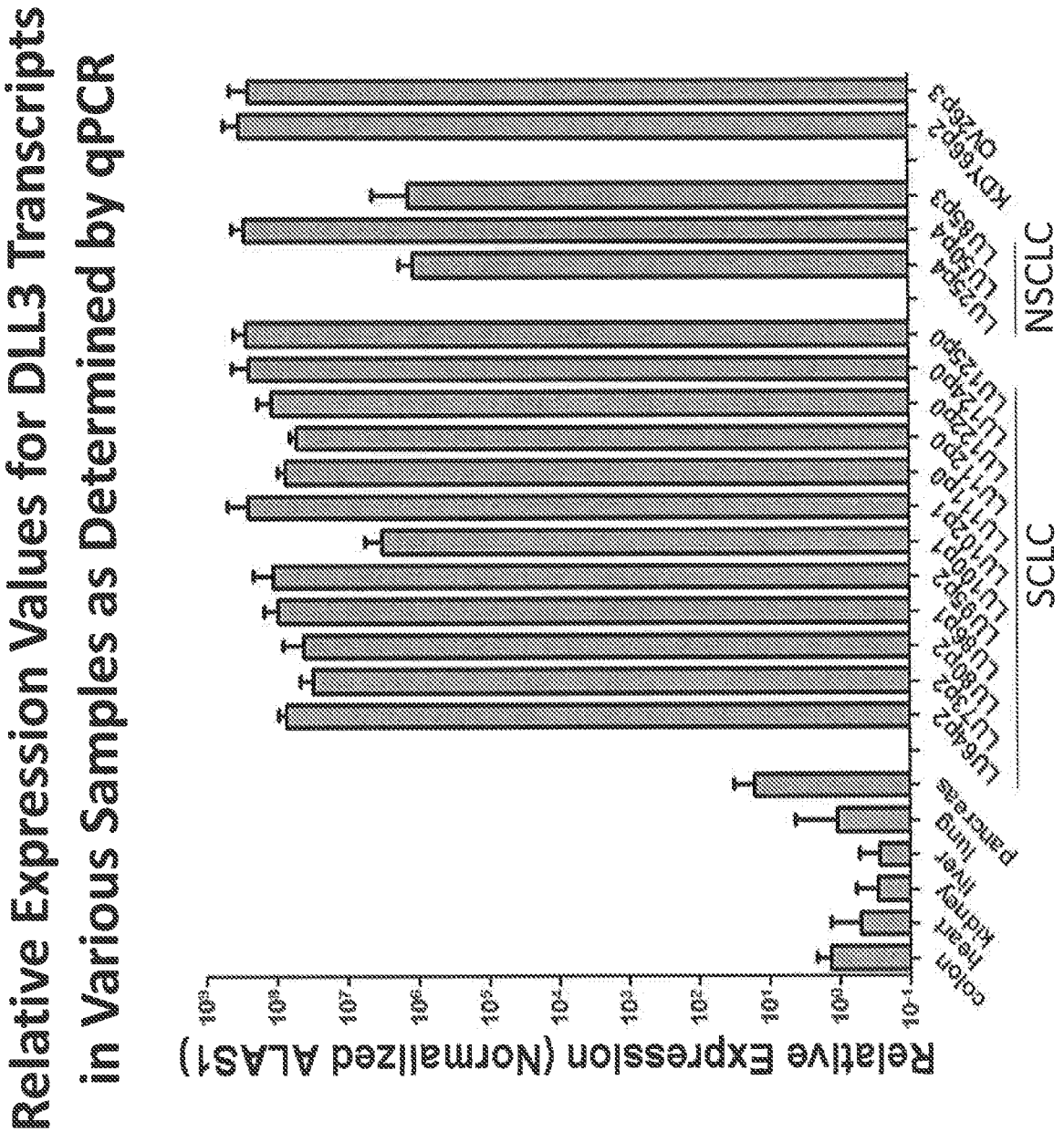

Relative Expression Values for DLL3 Transcripts
in Various Samples as Determined by qPCR
Relative Expression (Normalized ALAS1)
colon
heart
kidney
liver
lung
pancreas
LU64P2
LU73P2
LU60P2
LU65P1
LU65P2
LU100P1
LU102P1
LU117P0
LU129P0
LU132P0
LU134P0
LU175P0
LU35P4
LU50P4
LU65P3
KDYSEP2
OVCAP3
SCLC
NSCLC

FIG. 7

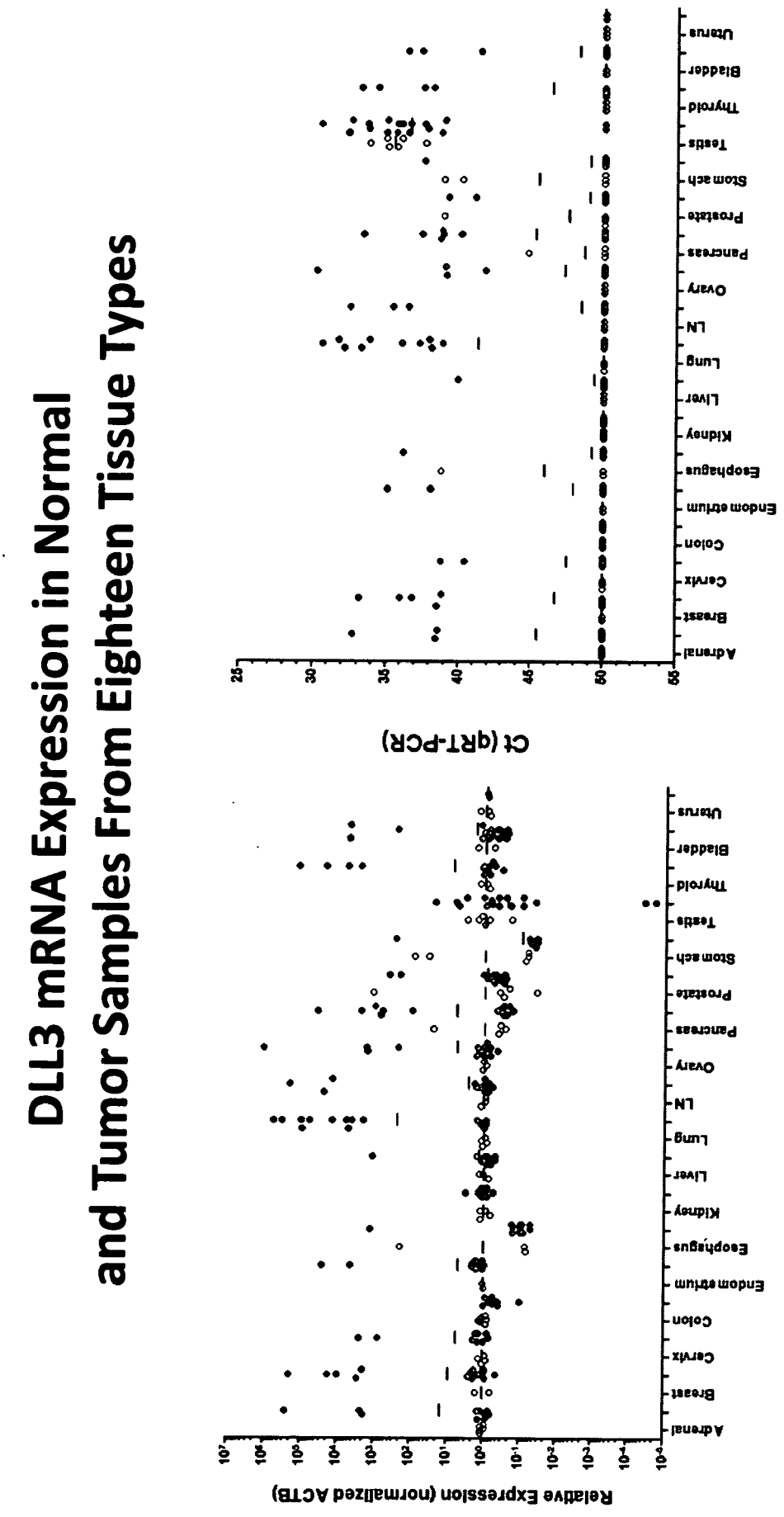

DLL3 mRNA Expression in Normal and Tumor Samples From Eighteen Tissue Types
Ct (qRT-PCR)
Relative Expression (normalized ACTB)
Adrenal
Breast
Cervix
Colon
Endometrium
Esophagus
Kidney
Liver
Lung
LN
Ovary
Pancreas
Prostate
Stomach
Testis
Thyroid
Bladder
Uterus

FIG. 8B

FIG. 8A

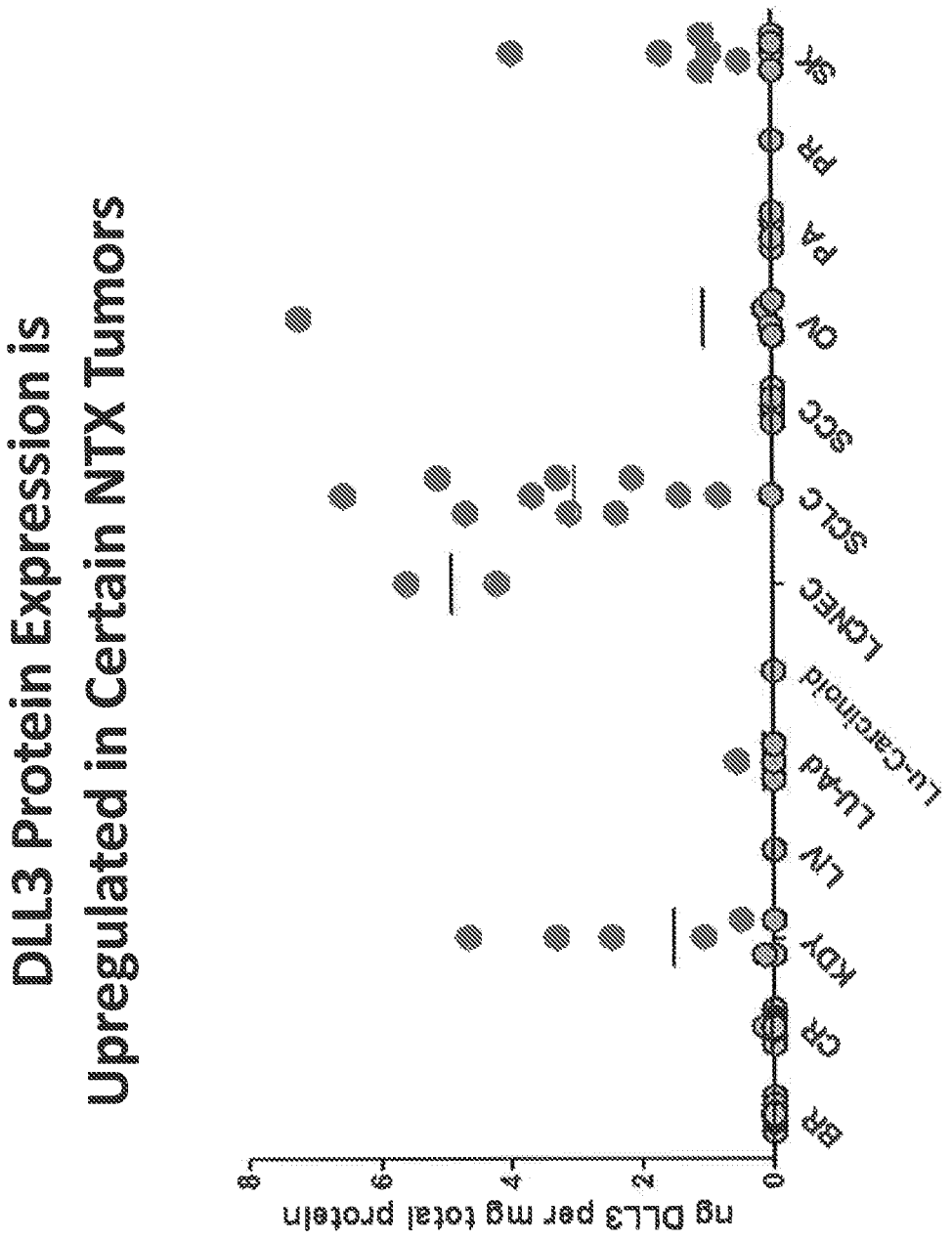

DLL3 Protein Expression is
Upregulated in Certain NTX Tumors
ng DLL3 per mg total protein
0
2
4
6
8
BR
CR
KDY
LN
LuAd
Lu-Carcinoid
LCNEC
SCLC
SCC
OV
PA
PR
GK

FIG. 8C

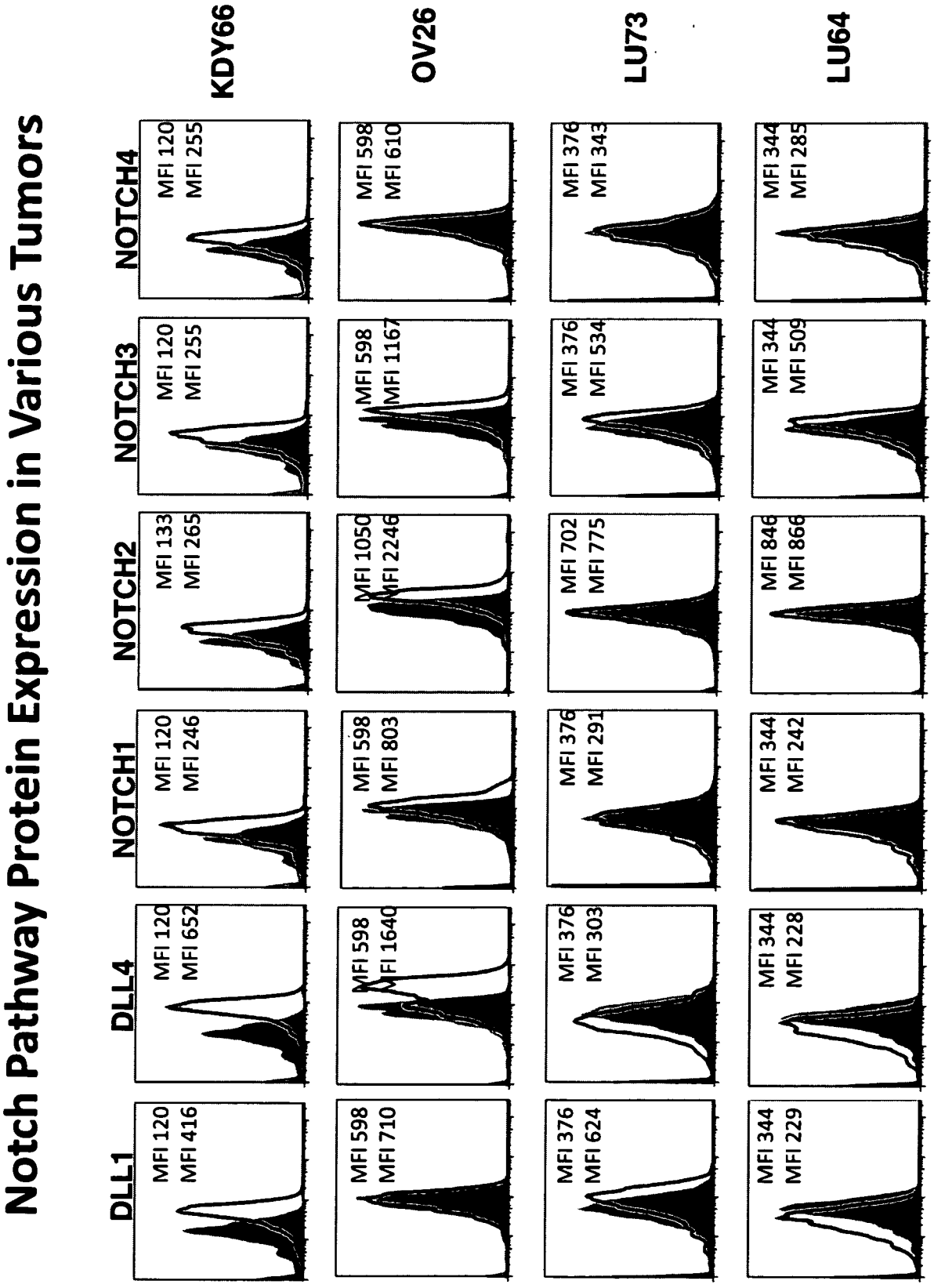

Notch Pathway Protein Expression in Various Tumors
DLL1
DLL4
NOTCH1
NOTCH2
NOTCH3
NOTCH4
KDY66
OV26
LU73
LU64
MFI 120 MFI 416
MFI 120 MFI 652
MFI 120 MFI 246
MFI 133 MFI 265
MFI 120 MFI 255
MFI 120 MFI 255
MFI 598 MFI 710
MFI 598 MFI 1640
MFI 598 MFI 803
MFI 1050 MFI 2246
MFI 598 MFI 1167
MFI 598 MFI 610
MFI 376 MFI 624
MFI 376 MFI 303
MFI 376 MFI 291
MFI 702 MFI 775
MFI 376 MFI 534
MFI 376 MFI 343
MFI 344 MFI 229
MFI 344 MFI 228
MFI 344 MFI 242
MFI 846 MFI 866
MFI 344 MFI 509
MFI 344 MFI 285

FIG. 9

>mature murine DLL3 DNA in lentiviral vector

SEQ ID NO. 5

GCTGGTGTCTTCGAGCTACAAATTCATTCTTTCGGGCCAGGCCCAGGCCTCGGGACCCCACGCT
CCCCCTGCAACGCCCGAGGCCCTTGCCGCCTCTTCTTCAGGGTCTGCCTGAAGCCCGGAGTCTC
CCAGGAGGCCACCGAGTCCCTGTGCGCCCTGGGCGCAGCACTGAGCACGAGCGTCCCGGTCTAT
ACGGAGCACCCCGGAGAGTCAGCGGCTGCCCTGCCGCTGCCTGATGGCCTCGTACGTGTGCCCT
TCCGCGATGCTTGGCCGGGCACCTTCTCCCTCGTCATTGAAACCTGGAGAGAGCAGCTGGGAGA
GCATGCTGGAGGGCCCGCCTGGAACCTGCTAGCACGTGTGGTCGGCCGTAGACGCCTGGCGGCT
GGGGGCCCGTGGGCCCGCGATGTGCAGCGCACAGGCACATGGGAGTTGCACTTCTCCTACCGCG
CGCGGTGCGAGCCGCCCGCCGTCGGGGCCGCCTGCGCGCGCCTGTGCCGCTCACGCAGTGCCCC
CTCGCGGTGTGGCCCGGGACTGCGACCCTGCACGCCATTCCCAGACGAGTGCGAAGCCCCGTCT
GTGTGTCGACCAGGCTGCAGCCCCGAGCACGGCTACTGTGAAGAGCCTGATGAATGCCGTTGCC
TGGAGGGCTGGACTGGACCCCTCTGCACGGTCCCTGTCTCCACCAGTAGCTGCCTGAACTCCAG
GGTTCCTGGTCCTGCCAGCACTGGATGCCTTTTACCTGGGCCTGGACCTTGTGATGGGAACCCA
TGTGCCAATGGGGGCAGCTGTAGTGAAACCTCTGGCTCCTTTGAATGTGCCTGTCCCCGGGGAT
TCTACGGGCTTCGATGTGAGGTGAGCGGGGTCACGTGCGCAGATGGACCCTGCTTCAATGGCGG
CTTGTGTGTTGGCGGTGAAGATCCTGACTCTGCCTATGTCTGTCATTGCCCACCTGGTTTCCAA
GGCTCTAACTGTGAGAAGAGGGTGGACCGCTGTAGCCTGCAGCCATGTCAGAATGGCGGCCTCT
GCCTGGACCTGGGCCACGCGTTGCGCTGCCGCTGTCGCGCGGGATTCGCCGGGCCGCGCTGCGA
GCACGACCTGGACGACTGCGCCGGCCGCGCCTGTGCCAACGGCGGCACGTGCGTGGAGGGCGGC
GGCTCGCGCCGCTGCTCCTGTGCGCTGGGCTTCGGCGGGCGCGACTGCCGAGAACGCGCCGACC
CCTGCGCCTCCCGCCCCTGCGCGCATGGAGGCCGTTGCTACGCCCACTTCTCTGGCCTGGTCTG
CGCCTGCGCGCCCGGCTACATGGGCGTGAGATGCGAGTTCGCTGTGCGCCCGGACGGCGCGGAC
GCGGTGCCCGCCGCCCCGCGGGGCCTGAGGCAGGCGGATCCACAGCGCTTTCTTCTGCCTCCCG
CCTTGGGGCTGCTGGTGGCCGCCGGTTTGGCTGGCGCCGCACTCTTGGTCATCCACGTTCGCCG
CCGAGGTCCTGGCCAGGATACCGGGACTCGCCTGCTTTCTGGGACCCGGGAGCCTTCGGTCCAC
ACGCTCCCGGATGCACTCAACAACCTGAGGTTACAAGACGGTGCTGGGGATGGCCCCAGTTCGT
CGGCTGACTGGAATCATCCTGAAGATGGAGACTCTAGATCCATTTATGTCATACCAGCCCCTTC
CATTTATGCACGAGAGGCCTGA

FIG. 10A

>translation of mature murine DLL3 in lentiviral vector

SEQ ID NO. 6

AGVFELQIHSFGPGPGLGTPRSPCNARGPCRLFFRVCLKPGVSQEATESLCALGAALSTS
VPVYTEHPGESAAALPLPDGLVRVPFRDAWPGTFSLVIETWREQLGEHAGGPAWNLLARV
VGRRRLAAGGPWARDVQRTGTWELHFSYRARCEPPAVGAACARLCRSRSAPSRCGPGLRP
CTPFPDECEAPSVCRPGCSPEHGYCEEPDECRCLEGWTGPLCTVPVSTSSCLNSRVPGPA
STGCLLPGPGPCDGNPCANGGSCSETSGSFECACPRGFYGLRCEVSGVTCADGPCFNGGL
CVGGEDPDSAYVCHCPPGFQGSNCEKRVDRCSLQPCQNGGLCLDLGHALRCRCRAGFAGP
RCEHDLDDCAGRACANGGTCVEGGGSRRCSCALGFGGRDCRERADPCASRPCAHGGRCYA
HFSGLVCACAPGYMGVRCEFAVRPDGADAVPAAPRGLRQADPQRFLLPPALGLLVAAGLA
GAALLVIHVRRRGPGQDTGTRLLSGTREPSVHTLPDALNNLRLQDGAGDGPSSSADWNHP
EDGDSRSIYVIPAPSIYAREA

FIG. 10B

>Deduced mature cynomolgus DLL3 DNA

SEQ ID NO. 7

CCCCAAGCCAGGCCCGCTGGCGTGTTCGAACTGCAGATCCATAGCTTCGGCCCTGGCCCTGGACCCGGAGCCCCT
AGAAGCCCTTGTTCCGCTAGAGGCCCCTGCAGACTGTTCTTCAGAGTCTGCCTGAAGCCTGGCCTGAGCGAGGAG
GCTGCTGAGAGCCCTTGTGCTCTGGGAGCTGCCCTCAGCGCTAGGGGCCCTGTCTACACCGAGCAACCTGAGGCT
CCCGCTCCCGATCTGCCTCTCCCTAACGGCCTGCTGCAGGTGCCCTTCAGGGATGCTTGGCCCCGGAACCTTCAGC
CTCATCATCGAGACCTGGAGGGAGGAACTCGGAGACCAGATTGGAGGACCCGCCTGGTCCCTGCTCGCTAGAGTG
ACAAGAAGAAGAAGGCTGGCTGCTGGCGGACCTTGGGCTAGAGATATCCAGAGAGCTGGCGCCTGGGAGCTCAGG
TTCAGCTACAGGGCCAGATGTGAGCTCCCTGCCGTGGGCACCGCTTGTACCAGGCTGTGTAGGCCCAGATCCGCC
CCTTCCAGATGTGGCCCCGGACTCAGACCTTGCGCTCCTCTCGAGGACGAGTGTGAAGCTCCTCCCGTCTGTAGG
GCCGGATGCAGCCTCGAGCACGGCTTCTGTGAGCAGCCTGGCGAATGTAGGTGCCTCGAAGGCTGGACCGGCCCT
CTCTGTATGGTGCCTGTCTCCACCTCCTCCTGTCTCGGACTGAGGGGCCCTTCCTCCGCTACAACCGGATGTCTG
GTCCCTGGACCTGGACCTTGCGACGGAAACCCTTGTGCCAACGGAGGCTCCTGTAGCGAGACCCCCGGAAGCTTT
GAATGTACCTGCCCCAGGGGCTTTTACGGCCTCAGATGCGAGGTCAGCGGAGTCACATGCGCCGACGGACCCTGC
TTTAATGGAGGACTCTGCGTGGGAGGAGCCGACCCTGATAGCGCTTACATCTGTCACTGTCCCCCCGGCTTTCAG
GGCTCCAACTGCGAGAAGAGGGTCGACAGGTGCTCCCTGCAACCCTGTAGAAATGGCGGCCTCTGCCTGGATCTG
GGACATGCTCTCAGGTGCAGATGTAGAGCTGGATTCGCCGGACCCAGGTGCGAGCATGATCTCGACGATTGTGCT
GGCAGGGCCTGCGCTAATGGAGGAACATGTGTGGAAGGAGGCGGAGCCCACAGATGCAGCTGCGCTCTCGGCTTC
GGCGGAAGAGACTGCAGAGAGAGGGCTGACCCTTGTGCCGCCAGGCCTTGTGCTCATGGCGGAAGGTGCTACGCC
CATTTCTCCGGACTCGTGTGCGCCTGCGCCCCTGGATATATGGGCGCTAGGTGCGAGTTTCCCGTCCACCCTGAT
GGAGTCAGCGCTCTCCCTGCCGCTCCTCCTGGACTGAGACCTGGAGATCCTCAGAGATACCTGCTCCCTCCTGCC
CTCGGACTCCTGGTCGCTGCTGGAGTCGCTGGAGCCGCTCTCCTCCTGGGACACGTCAGGAGAAGAGGCCACGCC
CAGGATGCTGGAAGCAGACTGCTGGCCGGAACACCCGAGCCTTCCGTCCATGCCCTGCCTGACGCCCTCAACAAC
CTGAGGACCCAGGAGGGCCCTGGAGATGTGCCTAGCAGCTCCGTCGACTGGAACAGACCTGAGGATGTGGACTCC
AGGGGCATCTACGTGATCAGCGCCCCCTCCATCTATGCCAGGGAGGTCGCCATGCCCCTCTTTCCTCCTCTGCAT
ACAGGCAGAGCCGGCCAGAGACAGAACCTGCTCTTCCCCTACCCCAGCAGCATCCTGTCCGTGAAGTGA

FIG. 10C

>translation of mature cynomolgus DLL3

SEQ ID NO. 8

PQARPAGVFELQIHSFGPGPGAPRSPCSARGPCRLFTRVCLKPGLSEEAAESPCALGA
ALSARGPVYTEQPEAPAPDLPLPNGLLQVPFRDAWPGTFSLIIETWREELGDQIGGPAWS
LLARVTRRRRLAAGGPWARDIQRAGAWELRFSYRARCELPAVGTACTRLCRPRSAPSRCG
PGLRPCAPLEDECEAPPVCRAGCSLEHGFCEQPGECRCLEGWTGPLCMVPVSTSSCLGLR
GPSSATTGCLVPGPGPCDGNPCANGGSCSETPGSFECTCPRGFYGLRCEVSGVTCADGPC
FNGGLCVGGADPDSAYICHCPPGFQGSNCEKRVDRCSLQPCRNGGLCLDLGHALRCRCRA
GFAGPRCEHDLDDCAGRACANGGTCVEGGGAHRCSCALGFGGRDCRERADPCAARPCAHG
GRCYAHFSGLVCACAPGYMGARCEFPVHPDGVSALPAAPPGLRPGDPQRYLLPPALGLLV
AAGVAGAALLLGHVRRRGHAQDAGSRLLAGTPEPSVHALPDALNNLRTQEGPGDVPSSSV
DWNRPEDVDSRGIYVISAPSIYAREVAMPLFPPLHTGRAGQRQNLLFPYPSSILSVK

FIG. 10D

Protein Sequences of Exemplary DLL3 Modulator Light Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.3	QIVLTQSPAIMSVSLGERVTMTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPARFSGSGSGTSYFFTISSMEAEDAATYYC	HQYHRSPFTFGAGTKLKIR	20
SC16.4	DIQMTQTTSSLSASLGDRVTISC	RASQDISNY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSGTDYSLTISNLELEDIATYFC	QQGDMLPWTFGGGTKLEIK	22
SC16.5	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWTRNPLTFGAGTKLELK	24
SC16.7	NIMMTQSPSSLAVSAGEKVTMSC	KSSQSVLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISTVQVEDLAVYYC	HQYLSSWTFGGGTKLEIK	26
SC16.8	EIQMTQSPSSMSASLGDRITITC	QATQDIVKN	LNWYQQKPGKPPSFLIY	YAIELAE	GVPSRFSGSGSGSDYSLTISNLESEDFADYYC	LQFYEFPFTFGAGTKLELK	28
SC16.10	QIVLTQSPAIMSASLGERVTMTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPTRFSGSGSGTSYSLTISSMEAEDAATYYC	HQYHRSPFTFGSGTKLEIK	30
SC16.11	DVEMTQTPLTLSVTIGQPASISC	KSSQSLSDSDGKTY	LNWMFQRPGRSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGKHFPWTFGGGTKLEIK	32
SC16.13	QIVLTQSPALVSASPGEKVTMTC	SASSSVSY	MYWYQQKPRSSPKPWIY	LTSNLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWRSNPFTFGSGTKLEIK	34
SC16.15	DIQMTQSPASLAASVGETVAITC	RASENIYYN	LAWYQQKQGKSPQLLIY	TANSLED	GVPSRFSGSGSGTQYSLKINSMQPEDSATYFC	KQAYDVPPTFGGGTKLEIK	36
SC16.18	DIQMTQTTSSLSASLGDRVTISC	RASQNIINY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSGTDYSLTISNLEPEDIATYYC	QQYSERPYTFGGGTKLEIKR	38
SC16.19	DIQMTQSPSSLSASLGGKVTFTC	KASQDIHKY	VAWYQHKPGKGPRLLIH	YTSTLQP	GISSRFSGSGSGRDYSFSISNLEPEDIATYYC	LQYNNLYTFGGGTKLEIKR	40
SC16.20	EIQMTQSPSSMSASLGDRITITC	QATQDIVKN	LNWYQQKPGKPPSFLIY	YATELAE	GVPSRFSGSGSGSDYSLTIRNLESEDFADHYC	LQFYEFPFTFGAGTKLELK	42
SC16.21	DIVMTQSPSSLAMSVGQKVTMSC	KSSQSLLNSSNQKNY	LAWYQQEPGQSPKLLVS	FASTRES	GVPDRFTGSGSGTDFTLTISGVQAEDLAVYYC	QQHYSIPLTFGAGTKLELK	44
SC16.22	DIQMTQTTSSLSASLGDRVTISC	RASQDIKNY	LNWYQQKPDGTVKPLIY	YTSRVHS	GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC	QQGYTLPFTFGSGTKLE	46
SC16.23	QIVLTQSPAIMSASPGEKVTLTC	SASSSVSSRY	LYWYQQKPGSSPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLIISSMEAEDAASYFC	HQWSNYPLTFGAGTKLELK	48
SC16.25	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DSSKLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSNPLTFGAGTKLELK	50
SC16.26	DVEMTQTPLTLSVTIGQPASISC	KSSQSLSDSDGKTY	LNWMFQRPGRSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGKHFPWTFGGGTKLEIK	52
SC16.29	QIVLTQSPAIMSASPGEKVTITC	SASSSVSY	MHWFQQKPGTSPKLWIY	TTSNLAS	GVPARFSGSGSGTSYSLTVSRMEAEDAATYYC	QQRSLYPYTFGGGTKVEIK	54
SC16.30	QIVLTQSPTIMSASLGERVTMTC	TASSSVTSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	HQFHRSPFTFGSGTKLEIK	56
SC16.31	DIVLTQSPLSLPVNIGDQASISC	KSTKSLLNSDGFTY	LDWYLQRPGQSPQFLIY	LVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQSNYLPLTFGAGTKLELR	58
SC16.34	SIVMTQTPKFLLVSAGDRVTITC	KASQSVSND	VAWYQQKPGQSPKLLIY	YASNRYS	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQDYSSPWTFGGGTKLEIK	60
SC16.35	DIQMTQTTSSLSASLGDRVTISC	RASQDISNY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC	QQGNTLPYTFGGGTKLEIK	62
SC16.36	ETTVTQSPASLSVTTGEKVTIRC	ITTPDIDDD	MNWYQQKPGEPPNLLIS	EGNSLRP	GVPSRFSSSGYGTNFVFTIENTLSEDVADYYC	LQSDNMPFTFGSGTKLEIK	64

FIG. 11A

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Protein Sequences of Exemplary DLL3 Modulator Light Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.38	QIVLTQSPAIMSASPGEKVTMTC	SASSSINY	MHWYQQKPGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	HQRSTWTFGGGTKLEIK	66
SC16.41	DIQMTQTTSSLSASLGDRVTISC	RASQDVINY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSRTDYSLTISNLEPEDIATYYC	QQYSERPYTFGGGTKLEIKR	68
SC16.42	DVLMTQSPLSLSVSLGDQASISC	RSSQNIVHSDRYTY	LEWYLQKPGQSPKLLIY	GVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDMGVYYC	FQGTHVPYTFGGGTKLEIK	70
SC16.45	EIQMTQSPSSMSASLGDRITITC	QATQDIVKN	LNWYQQKPGKPPSFLIY	YATELAE	GVPARFSGSGSGSDYSLTISNLESEDFADYHC	LQFYEFPFTFGAGTKLELK	72
SC16.47	DVVLTQSPLSLPVNIGDQASISC	KSTKSLLNSDGFTY	LDWYLQRPGQSPQFLIY	LVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQSNYLPLTFGAGTKLELR	74
SC16.49	DIKMTQSPSSMYASLGERVTITC	KASQDINSYL	SWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTITSLEYEDMGIYYC	LQYDEFPLTFGAGTKLELK	76
SC16.50	DIQMTQTTSSLSASLGDRVTISC	RASQDISNY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC	QQGNTLRTFGGGTKLEIK	78
SC16.52	DIQMIQSPSSMFASLGDRVSLSC	RASQGIRGT	LDWYQQKPNGTIKLLIY	STSNLNS	GVPSRFSGSGSGSDYSLTISSLESEDFADYYC	LQRNAYPLTFGAGTKLELK	80
SC16.55	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LNWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPYTFGGGTKLEIKR	82
SC16.56	SIVMTQTPKFLLVSAGDRVTITC	KASQSVSND	VVWYQQKPGQSPKLLIY	YASNRYT	GVPDRFAGSGYGTDFSFTISTVQAEDLAVYFC	QQDYTSPWTFGGGTKLEIR	84
SC16.57	DIVMTQSHKFMSISVGDRVSITC	KASQDVSIF	VAWYQQKPGQSPKLLIY	SASYRYT	GVPDRFTGSGSGTDFIFTISSVQAEDLAVYYC	QQHYGTPFTFGSGTKLKIR	86
SC16.58	DIQMTQSPASLSSSVGETVTITC	RASENIYSY	LAWYQQKQGKSPQLLVY	NAKTLAE	GVPSRFSGSGSGTQFSLKINSLQPEDFGTYYC	QHHYDSPLTFGAGTKLELR	88
SC16.61	DIVMTQSTSSLAMSVGQKVTMSC	KSSQSLLNSSNQKNY	LAWYQQEPGQSPKLLVS	FASTRES	GVPDRFTGSGSGTDFTLTISGVQAEDLAVYYC	QQHYSIPLTFGAGTKLELK	90
SC16.62	DIKMTQSPSSMYASLGERVTITC	KASQDINSF	LSWFQRKPGKSPKTLIY	RANRLVD	GVPSRFTGSGSGQEFSLTISSLEYEDLGIYYC	LQYDEFPYTFGGGTKLEIKR	92
SC16.63	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MYWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSNPYTFGGGTKLEIK	94
SC16.65	QIVLTQSPALMSASPGEKVTMTC	SVTSSVSY	MYWYQQKPRSSPKPWIY	LTSNLAS	GVPARFSGSGSGTSYSLTISSVEAEDAATYYC	QQWRNNPFTFGSGTKVEIK	96
SC16.67	QAVVTQESALTTSPGETVTLTC	RSSTGAVTTSNY	ANWIQEKPDHLFTGLIG	GTNNRAP	GVPARFSGSLIGDKAALTITGAQTEDEAIYFC	GLWYSNHLVFGGGTKLTVL	98
SC16.68	ETTVTQSPAFLSVATGEKVTIRC	ITSTDIDDD	MNWYQQKPGEPPNVLIS	EGNTLRP	GVPSRFSSSGYGTDFVFTIENTLSEDVADYYC	LQSDNMPLTFGAGTKLELK	100
SC16.72	ENVLTQSPAIMSASLGEKVTMSC	RASSSVNY	MSWYQQKSDASPKLWIY	YTSNLAP	GVPARFSGSGSGNSYSLTISSMEGEDAATYYC	QQFTSSPYTFGGGTKLEIKR	102
SC16.73	DIQMTQSPSSLSASLGERVSLTC	RASQDIGYS	LNWLQQEPDGTIKRLIY	ATSSLDS	GVPKRFSGSRSGSDYSLTISSLESEDFVDYYC	LQYASSPWTFGGGTKLEIK	104
SC16.78	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LSWFQQKPGRSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLDYEDMGIYYC	LQYDEFPFTFGSGTKLEIK	106
SC16.79	DIVMSQSPSSLAVSAGEKVTMSC	KSSQSLLNSRTRKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVQAEDLAVYYC	KQSYNLYTFGGGTKLKIKR	108
SC16.80	ETTVTQSPASLSMAIGEKVTIRC	ITSTDIDDD	MIWYQQKPGEPPKLLIS	EGNTLRP	GVPSRFSSSGYGTDFVFTIENMLSEDVADYYC	LKRDDLPYTFGGGTQVEIKR	110
SC16.81	QIVLTQSPAIMSASLGERVTLTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPTRFSGSGSGTSYSLRISSMEAEDAATYYC	HQYNRSPLTFGAGTKLELK	112
SC16.84	DIQMTQSPSSLSASLGGKVTITC	KASQDIKKY	IAWYQHKPGKGPRLLIH	YTSTLEP	GIPSRFSGSGSGRDYSFSISNLEPEDIATYYC	LQYDILWTFGGGTKLEIK	114
SC16.88	ENVLTQSPAIMAASLGQKVTMTC	SASSSVSSSY	LHWYQQKSGASPKPLIH	RTSNLAS	GVPARFSGSGSGTSYSLTISSVEAEDDATYYC	RQWSGYPWTFGGGTKLEIK	116

FIG. 11A (Cont.)

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Protein Sequences of Exemplary DLL3 Modulator Light Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.101	QIVLTQSPAIMSASLGERVTMTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPARFSGSESGTSYSLTISNMEAEDAATYYC	HQYHRSPFTFGSGTKLEIK	118
SC16.103	DIVLTQSPASLAVSLGQRATISC	RASKSVSTSGYSY	MHWYQQKPGQPPKLLIY	LASNLES	GVPARFSGSGSGTDFTLNIHPVEEEDAATYYC	QHSRELPLTFGAGTKLELK	120
SC16.104	QIVLSQSPAILSASPGEKVTMTC	RASSSVSY	IHWYRQKPGSSPKPWIY	ATSNLAS	GVPARFSGSGSGTSYSLTISRVEAEDAATYYC	QQWSSNPPTFGAGTKLELK	122
SC16.105	DIVMTQSHKFMSTSVGDRVSIT	KASQDVGTA	VAWYQQKPGQSPKLLIY	WASIRHT	GVPDRFTGSGSGTDFTLTISNVQSEDLADYFC	QQYSSYPLTFGAGTKLELK	124
SC16.106	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LSWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPFTFGSGTKLEIK	126
SC16.107	DIVMTQSHKFMSTSVGDRVSITC	KASQDVNTA	VGWYQQKPGQSPKLLIY	SASYRYT	GVPDRFTGSGSGTDFTFTISSVQAEDLAVYYC	QQHYSSPYTFGGGTKLEIKR	128
SC16.108	DIQMTQSPASLSASVGETVTITC	RASENIYSY	LAWYQQKQGKSPQLLVY	NAKTLAE	GVPSRFSGSRSGSQFSLKINSLQPEDFGSYYC	QHHYGTPYTFGGGTKLEIKR	130
SC16.109	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MYWYQQKPGSSPRLLIY	DTSNLAS	GVPVRFSGSGSGTSFSLTISRMEAEDTATYYC	QEWSGNPLTFGDGTKLELK	132
SC16.110	NIVMTQTPKFLLVSAGDRVTITC	KASQSVSND	VAWYQQKPGQSPKLLIY	YASNRYT	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQDYSSPPTFGGGTKLEIK	134
SC16.111	DIQMTQSPASLAASVGETVTITC	RASENIYYS	LAWYQQKQGKSPQLLIY	NANSLED	GVPSRFSGSGSGTQYSMKINSMQPEDTATYFC	KQTYDVPLTFGAGTKLELK	136
SC16.113	DVVMTQTPLTLSVTIGQPASISC	KSSQSLLDSDGTTY	LNWLLQRPGQSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGTHFPLTFGAGTKLELK	138
SC16.114	QIVLSQSPAILSASPGEKVTMTC	RASSSVSY	MHWYQQKPGSSPKPWIY	ATSNLAS	GVPARFSGSGSGTSYSLTISRVEAEDAATYYC	QQWSSNPYTFGGGTKLEIKR	140
SC16.115	DVVMTQTPLTLSVTIGQPASISC	KSSQSLLDSDGTTY	LNWLLQRPGQSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGTHFPLTFGAGTKLELK	142
SC16.116	DIVMTQSPSSLTVTAGEKVTMSC	TSSQSLLTSGNQKNY	LTWYQQKPGQPPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSLQAEDLAVYYC	QNDYSLTFGAGTKLELK	144
SC16.117	DIQMNQSPSSLSASLGDTITITC	HVSQNINVW	LSWYQQKPGNIPKLLIQ	KASNLHT	GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC	QQGQSYPFTFGSGTKLEIK	146
SC16.118	DIVLTQSPASLAVSLGQRATISC	KASQSVDYDGDSY	LTWYQQKPGQPPKLLIY	AASNLES	GIPARFSGSGSGTDFTLNIHPVEEEDAATYYC	QQSNEDPYTFGGGTKLEIKR	148
SC16.120	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSTQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC	QQYYSYPYTFGGGTKLEIKR	150
SC16.121	QIVLTQSPAIMSASPGEKVTITC	SASSSVSY	MHWFQQKPGTSPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLTISRMEAEDAATYYC	QQRSSYPPTFGGGTKLEIKR	152
SC16.122	DIVMTQSQKFMSTSVGDRVSVTC	KASQNVGTN	VAWYQQKPGQSPKVLIY	SASYRYS	GVPDRFTGSGSGTDFTLTISNVQSEDLAEFFC	QQYNSYPLTFGGGTKLEIK	154
SC16.123	QIVLTQSPAIMSASLGERVTMTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLTISSMETEDAATYYC	HQYHRSPFTFGSGTKLEIK	156
SC16.124	DIQMTQSPASQSASLGESVTITC	LASQTIGTW	LAWYQQKPGKSPQLLIS	AATSLAD	GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC	QQLYSTPWTFGGGTKLEIK	158
SC16.125	DIQMNQSPSSLSASLGDTITITC	HASQNINVW	LSWYQQKPGNIPKLLIY	KASILHT	GVPSRFSGSGSGTGFTLTISSLQPEDIATYSC	QQGQSYPYTFGGGTKLEIK	160

FIG. 11A (Cont.)

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Protein Sequences of Exemplary DLL3 Modulator Light Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.126	DIQMNQSPSSLSASLGDTITITC	HASQNINVW	LSWYQQKPGNIPKLLIY	KASNLHT	GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC	QQGQSYPFTFGSGTKLEIK	162
SC16.129	DIQMTQSPASQSASLGESVTITC	LASQTIGTW	LAWYQQKPGKSPQLLIY	AATSLAD	GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC	QQLYSTPYTFGGGTKLEIKR	164
SC16.130	DIQLTQSPASLSASVGETVTITC	RASGSIHNY	LAWYQQKQGKSPQLLVY	NAKTLVD	GVPSRFSGSGSGTQYSLKINSLQPEDFGYYYC	QHFWTTPWTFGGGTKLEIK	166
SC16.131	DIQMNQSPSSLSASLGDTITITC	HVSQNINVW	LSWYQQKPGNIPKLLIQ	KASNLHT	GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC	QQGQSYPFTFGSGTKLEIK	168
SC16.132	DIQMTQSPASQSASLGESVTITC	LASQTIGTW	LAWYQQKPGKSPQLLIY	AATSLAD	GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC	QQLYSTPWTFGGGTKLEIK	170
SC16.133	SIVMTQTPKFLLVSAGDRVTITC	KASQSVSND	VAWYQQKPGQSPKLLIY	CASNRYT	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQDYSSPLTFGAGTKLELK	172
SC16.134	DIVLTQSPASLAVSLGQRATISC	KASQSVDHAGDSY	MNWYQQKPGQPPKLLIY	AASNLES	GIPARFSGSGSGTDFTLNIHPVEEEDAATYYC	QQSNEDPYTFGGGTKLEIKR	174
SC16.135	DIKMTQSPSSMYASLGERVTITC	KASQDINRY	LSWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPFTFGSGTKLEIK	176
SC16.136	DIQMTQSPASLSASVGETVTITC	RASGNIHNY	LAWYQQKQGKSPHLLVY	NAKTLAD	GVPSRFSGSGSGTQYSLKINSLQPEDFGSYYC	QHFWSTPWTFGGGTKLEIK	178
SC16.137	QIVLTQSPAIMSASLGEEITLTC	SASSSVSY	MHWYQQKSGTSPKLLIY	STSNLAS	GVPSRFSGSGSGTFYSLTISSVEAEDAADYYC	HQWSSYHTFGGGTKLEIKR	180
SC16.138	DIQMTQSPASQSASLGESVTITC	LASQTIGTW	LAWYQQKPGKSPQLLIY	SATSLAD	GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC	QQLYSTPWTFGGGTKLEIK	182
SC16.139	DIVMTQSHKFMSTSVGDRVSITC	KASQDVNTA	VGWYQQKPGQSPKLLIY	SASYRYT	GVPDRFTGSGSGTDFTFTISSVQAEDLAVYYC	QQHYSSPYTFGGGTKLEIK	184
SC16.140	DIVLTQSLASLAVSLGQRATISC	RASKSVSTSGYSY	MHWYQQKPGQPPKLLIY	LASNLES	GVPARFSGSGSGTDFTLNIHPVEDEDAATYYC	QHSRELPFTFGGGTKLEIKR	186
SC16.141	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LSWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPFTFGSGTKLEIK	188
SC16.142	DIKMTQSPSSMYASLGERVTITC	KASQDINNY	LSWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPYTFGGGTKLEIKR	190
SC16.143	DVLMTQTPLSLPVSLGDQASISC	RSSQSIVHSNGNTY	LEWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQGSHVPLTFGAGTKLELK	192
SC16.144	SIVMTQTPKFLLVSAGDRVTITC	KASQSVSND	VGWYQQKPGQSPKLLIY	YASNRYN	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQDYSSPWTFGGGTKLEIK	194
SC16.147	DIQMTQTASSLSASLGDRVTISC	RASQDINNY	LNWYQQKPDGTVKLLIY	YTSRLHS	GVPSRFSGSGSGTDYSLTISILEQEDIATYFC	QQGDTLPWTFGGGTKLEIK	196
SC16.148	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MYWYQQKPGSSPRLLIY	DTSNLAS	GVPVRFSGSGSGTSYSLTISRMEAEDTATYYC	QEWSNNPLTFGDGTKLELK	198
SC16.149	DIQMNQSPSSLSASLGDTITITC	HASQNINVW	LSWYQQKPGNIPKLLIY	KASHLHT	GVPSRLSGSGSGTGFTLTISSLQPEDIATYYC	QQGQSYPFTFGSGTTLEIK	200
SC16.150	DIVMSQSPSSLTVSVGEKVTMSC	MSSQSLLYSSTQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC	QQYYSYPYTFGGGTKLEIKR	202

FIG. 11A (Cont.)

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Protein Sequences of Exemplary Humanized DLL3 Modulator Light Chain Variable Regions

hmAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
hSC16.13	DIQMTQSPSSLSASVGDRVTITC	SASSSVSY	MYWYQQKPGKAPKLLIY	LTSNLAS	GVPSRFSGSGSGTDFTLTISSLQPEDFATYYC	QQWRSNPFTFGQGTKLEIKR	204
hSC16.15	AIQLTQSPSSLSASVGDRVTITC	RASENIYYN	LAWYQQKPGKAPKLLIY	TANSLED	GVPSRFSGSGSGTDFTLTISSLQPEDFATYFC	KQAYDVPPTFGGGTKLEIK	206
hSC16.25	EIVLTQSPDFQSVTPKEKVTITC	SASSSVSY	MHWYQQKPDQSPKLLIK	DSSKLAS	GVPSRFSGSGSGTDFTLTINSLEAEDAATYYC	QQWSSNPLTFGQGTKLEIK	208
hSC16.34	DIQMTQSPSSLSASVGDRVTITC	KASQSVSND	VAWYQQKPGKVPKLLIY	YASNRYS	GVPSRFSGSGSGTDFTLTISSLQPEDVATYFC	QQDYSSPWTFGGGTKVEIK	210
hSC16.56	EIVMTQSPATLSVSPGERATLSC	KASQSVSND	VVWYQQKPGQAPRLLIY	YASNRYT	GIPARFSGSGSGTEFTLTISSLQSEDFAVYYC	QQDYTSPWTFGQGTKLEIKR	212

FIG. 11A (Cont.)

Protein Sequences of Exemplary DLL3 Modulator Heavy Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.3	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYNPALKSRLTISKDTSSSQVFLKIASVDTADTATYYC	ARIADYGGDYYAMDYWGQGTSVTVSS	21
SC16.4	QIQLVQSGPELKKPGETVKISCKAS	GYTFTDYS	MHWVKQAPGKGLKWMGW	INTETGEP	GYADDFKGRFAFSLETSASTAYLQINNLKNEDTATYFC	ARYDGYAMDYWGQGTSVTVSS	23
SC16.5	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGEGLEWLAD	IWWDDNK	YYNPSLKSRLTISKDTSSNQVFLKITSVDTADTATYYC	ARRVNYVYDPYYAMDYWGQGTSVTVSS	25
SC16.7	EVQLQQSGPELVKPGASVKISCKAS	GYSFTGYK	MHWVKQSHVKSLEWIGR	INPYNGAT	SYNQNFKDKATLTVDKSSSTAYMDLHSLTSEDSAVYFC	ARGDYRYDWFAYWGQGTLVTVSA	27
SC16.8	QAQLQQSGAELVRPGTSVKVSCKAS	GYAFTNYL	IEWVKQRPGQGLEWIGV	INPGTGGT	NYNENFKGKATLTADKSSSTAYMQLSSLTSDDSAVYFC	ARSPYDYHEGAMDYWGQGTSVTVSS	29
SC16.10	QVTLKESGPGILQSSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYNPVLKSRLTISKDTSSSQVFLKIASVDTADTATYYC	ARLVDDLYYFDYWGQGTTLTVSS	31
SC16.11	QIQLVQSGPELKKPGETVKISCKAS	GYTFTDYS	MHWVKQAPGKGLKWMGW	INTETVEP	TYADDFMGRFAFSLETSASTAFLQINNLENEDTATYFC	ARFGSYAMDYWGQGTSVTVSS	33
SC16.13	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYNPALKSRLTISKDTSSSQVFLKIASVDTADTATYYC	ARIVSFDNDVVSAMDYWGQGTSVTVSS	35
SC16.15	QVQLQQSGAELAKPGASVKMSCKA	SGYTFTRYW	IHWIKQRPGQGLEWIGY	INPTTVYT	EFNQNFKDKATLTADKSSTTASMQLSSLTSEDSAVYYC	ARGGSNFFDYWGQGTTLTVSS	37
SC16.18	EVKLEESGGGLVQPGESMKLSCAAS	GFTFSDAW	MDWVRQSPEKGLEWVAE	IRNKANNHAT	YYAESVKGKFTISRDDSKSRVYLQMNNLRAADTGIYYC	TAYSNFAYWGQGTLVTVST	39
SC16.19	EVQLQQSGAELVRPGASVKLSCTAS	GFNIKDSL	LHWVKQRPEKGLEWIGW	IDPEDGET	KYAPNFQDKATITTDSSSNTAYLQLISLTSVDTAIYYC	AYGNYVRHFDYWGQGTTLTVSS	41
SC16.20	QVQLQQSGTELVRPGTSVRVSCKA	SGYAFGNHL	IEWVKQRPGQGLEWIGV	INPGTGGT	HYNEKFKDKARLTADKSSNTAYMHLNSLTSDDSAVYFC	ARSPYDYHEGAMDYWGQGTSVTVSS	43
SC16.21	QVQLQQSGPELVKPGASVKISCKAS	GYAFSSSW	MNWVKQRPGKGLEWIGR	IYPGDGDT	NYNGKFKGKATLTADKSSSTAYMQLSSLTSEDSAVYFC	AMGIYNYDGSRYYSMDYWGQGTSVTVSS	45
SC16.22	QVQLQQPGAELVKPGASVKLSCKAS	GYTFTTYW	MHWVKQRPGQGLEWIGE	IDPSDSYT	YYNQKFKGKATLTVDKSSSTAYMQLSSLTSEDSAVYYC	ARGDYGNPYAMDYWGQGSSVTVSS	47
SC16.23	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSNTG	IGWIRQPSGTGLEWLAH	IWWNDDK	YYNPSLKSRLTISKETSNNQVFLKITNVDTADTASYFC	VQIGRDYSNYAWYFDVWGAGTTVTVSS	49
SC16.25	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGEGLEWLTD	IWWDDNK	YYNPSLKSRLTISKDTSSNQVFLNITSVDTADTATYYC	ARRVNYYYDPYYAMDYWGQGTSVTVSS	51
SC16.26	QIQLVQSGPELKKPGETVKISCKAS	GYSFTDYS	MHWVKQAPGKGLKWMGW	INTETVEPT	YADDFMGRFAFSLETSASTAFLQINNLENEDTATYFC	ARFGSYAMDYWGQGTS	53
SC16.29	QVQLQQSGAELARPGASVKLSCKAS	GYTFTDQY	INWVKQRTGQGLEWIGE	IYPGRGNT	YYNEKFKGKATLTADKSSSTAYMQLSSLTSEDSAVYFC	AREDGGYDDAWFAYWGQGTLVTVSA	55
SC16.30	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYKPALKSRLTVSKDTSSNQVFLKIATVDAADTGTYYC	ARIVDGHPPFAYWGQGTLVTVSA	57
SC16.31	EVQLQQSGPELVKPGASVKISCKAS	GYSFSRFY	MHWVKQSPENSLEWGE	INPSTGGT	ISYNQKFKGKATLTVDKSSSTAYMQLKSLTSEESAVYYC	TRGYGSNWYFDVWGAGTTVTVST	59
SC16.34	QIQLVQSGPELKRPGETVKISCKAS	GYTFTNYG	MNWVKQAPGKGLKWMGW	INTYTGDP	TYADDFKGRFAFSLETSASTAYLQINNLKNEDTATYFC	ARIGGNSPSDYWGQGTSLTVSS	61
SC16.35	SDVQLQESGPGLVKPSQSLSLTCTVT	GYSITSDYA	WNWIRQFPGNKLEWMGY	ISYSGST	SYNPSLKSRISITRDTSKNQFFLQLNSVTTEDTATYYC	ARFYYGSSYAMDYWGQGTSVTVSS	63
SC16.36	QVQLQQSGAELAKPGASVKMSCKAS	GYTFTTYW	MHWVKQRPGQGLEWIGY	INPSSGYT	EYNQKFKDKATLTADKSSSTAYMQLSSLTSEDSSVYYC	ARKGSNRGFAYWGQGTLVTVS	65
SC16.38	EVQLQQSGAELVKPGASVKLSCTVS	GFNIKDTY	IHWVKQRPEQGLEWIGR	IDPANGNT	KYDPKFQGKATITADTSSNTAYLQLSSLTSEDTAVYYC	ARPTGYFEYWGQGTTLTVSS	67

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FIG. 11B

Protein Sequences of Exemplary DLL3 Modulator Heavy Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.41	EVKLEESGGGLVQFGGSMKLSCAAS	GFTFSDAW	MDWVRQSPEKGLEWVAE	IRNKANNHAT	YYPESVKGRFTISRDDSKSRVYLQMNNLRAEDTGIYYC	TGYSSFAYWGQGTLVTVSA	69
SC16.42	QIQLVQSGPELKKPGETVKISCKAS	GYTFTTAG	MQWVQKMPGKGFKWIGW	INTHSGEP	KYADDFKGRFAFSLETSASTAYLQISNLKDEDTATFFC	APLWSDSSFAYWGQGTLVTVSA	71
SC16.45	QVQLQQSGADLVRPGTSVKVSCKAS	GYSFTNYL	IEWVKQRPGQGLEWIGV	INPGSGGT	HYNEKFKDKAVLTADKSSTTAHMQLSSLTSDDSAVYFC	ARSPYDYNDGAMDYWGQGTSVTVSS	73
SC16.47	EVQLQQSGPELVKPGASVKISCKAS	GYSFSRFY	MHWVKQSPENSLEWIGE	INPSTGGT	SYNQKFKGKATLTVDKSSSTAYMQLKSLTSEESAVYYC	TRGYGSNCYFDVWGAGTTVTVST	75
SC16.49	QVQLQQSGPELVKPGTLVKISCKAS	GYTFTSYD	INWVKQRPGQGLEWIGW	IYPGDGNT	KYSEKFKGKATLTADKSSSTAYMQLTSLTSENSAVYFC	ARDYDYPFAYWGQGTLVTVSA	77
SC16.50	EVQLVECGGCLVKPGGYLKLSCAAS	GFTFSSYA	MSWVRQSPEKRLEWVAE	ISIGGSYT	YYPDTVTGRFTISRDNAKNTLYLEMSSLRSEDTAMYYC	AREGYDYDVRAMDYWGQGTSVTVSS	79
SC16.52	QVQLKESGPGLVAPSQSLSITCAVS	GFSLTSFA	IHWFRKPPGKGLEWLGV	IWTGGTT	NYNSALMSRLSISKDNSKSQVFLKMNSLQTDDTAMYYC	ARDDYDNNYAMDYWGQGTSVTVSS	81
SC16.55	EVQLVESGGGLVQPKGSLKLSCAVS	AFTFTTYA	MNWVRQAPGKGLEWVAR	IRNKSNNYAT	YYADSVKDRFTISRDDSQSMLYLQMNNLKIEDTAMYYC	VFYYDYVYWGQGTLVTVSA	83
SC16.56	QIQLVQSGPELKKPGETVKISCKAS	GYTFTNYG	MNWVKQAPGKGLKWMAW	INTYTGEP	TYADDFKGRFAFSLETSASTASLQIINLKNEDTATYFC	ARIGDSSPSDYWGQGTTLTVSS	85
SC16.57	EVKLVESGGDLVKPGGSLKLSCAAS	GFAFSSYD	MSWVRQTPEKRLEWVAT	ISSGGSYT	YYPDSVKGRFTISRDNVRDTLYLQMSSLRSEDTALYYC	ARQAIGTYFDYWGQGTTLTVSS	87
SC16.58	DVQLVESGGGLVQPGGSRKLSCAAS	GFTFSSFG	MHWVRQAPEKGLEWVAY	ISSGSSNI	YYADTVKGRFTISRDNPKNTLFLQMTSLRSEDTAMYYC	ARGYYGNYDAMDYWGQGTSVTVSS	89
SC16.61	EVLLQRSGPDLVKPGASVTIPCKAS	GYTFTDYN	MDWVKQSHGKSLEWIGN	INTYNGGT	IYNQKFKGKATLTVDKPSSTAYMELRSLTSEDTAVYYC	ARRLRYGGHYFDYWGQGTALTVSS	91
SC16.62	EVMLVESGGDLVKPGGSLKLSCAAS	GFTFSSYA	MSWVRQTPEKRLEWVAY	ISGGGDHI	YYPDSVRGRFTISRDNAKDTLYLQMSSLRSEDTALYDC	ARVRDWYFDVWGAGTTVTVSS	93
SC16.63	QVQLQQSGTELLRPGASVKISCKAT	GYTFSSYW	MEWVKQRPGHGLEWIGE	ILPGSGTT	QYNEKFKGKATFTADTSSNTAYMHLSSLTSEDSAVYYC	ARGTNSLWGQGTLVTVSA	95
SC16.65	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLALI	WWDDVK	RYNPALKSRLTISKDASSSQVFLKIASVDTADTATYYC	ARIASYDYDVVYAMDYWGQGTSVSVSS	97
SC16.67	EVQLVETGGGLVQPKGSLKLSCAVS	AFTFTTYA	MNWVRQAPGKGLEWVAR	IRNKSNNYAT	YYADSVKDRFTISRDDSQSMLYLQMNNLKIEDTAMYYC	VFYYDYVYWGQGTLVTVSA	99
SC16.68	QVQLQQPGAELVKPGASVKMSCKAS	GYTFTNYN	MHWVKQTPGQGLEWIGA	IFPGNGGT	SYNQKFKGKATLTADKSSSTAYMQLTSLTSGDSAVYYC	ARWGYGSGLYAMDYWGQGTSVTVSS	101
SC16.72	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTSYV	MHWVKQKPGQGLEWIGY	INPYNDGT	KYNEKFKGKATLTSDKSSSTAYMELSSLTSEDSAVYYC	ARLRSRAMDYWGQGTSVTVSS	103
SC16.73	QVQLQQSGAELMKPGASVKISCKAN	GYTFSSYW	IEWLRQRPGHGLEWIGE	ILPGSDNS	NYNEKFKGKATFTADTSSNTAYMQLSSLTSEESAVYYC	TRGLRRDGSYYYVMEHWGQGTSVTVSS	105
SC16.78	EVKLVESGGGLVKPGGSLKLSCAAS	GFTFGRYV	MSWVRQTPEKKLEWVAS	ITSGGTT	YYPDSVKGRFTISRDNARNILYLQMSSLRSEDTAMYYC	ARVYYHYDDIFAYWGQGTLVTVSA	107
SC16.79	EVQLQQSGPELVKPGASVKISCKTS	GYTFTEYT	MHWVKQSHGKSLEWIGG	INPNNGGT	SYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYC	ARGPAWFAYWGQGTLVTVSA	109
SC16.80	EVQLQQSGPELVKPGGSKKISCKAS	GYSFTGYS	MNWVKQSHGKNLEWIGL	INPYSGGT	IYNQKFKGKATLTVDKSSSTAYMELLSLTSEDSAVYYC	ARRSDYPLVYWGQGTLVTVSA	111
SC16.81	QVQLKESGPVLVAPSQSLSITCTVS	GFSLTSYG	VHWVRQPPGKGLEWLGV	IWAGGST	NYNSALMSRLSISKDNSKSQVFLKMNSLQTDDTAMYYC	AKQGNFYAMDYWGQGTSVTVSS	113
SC16.84	EVQLQQSGPELVKPGASMKISCKAS	GYSFTGYT	MNWVKQSHGKNLEWIGL	INPYNGGT	TYNQKFKGKATLTVDKSSSTAYMELLSLTSEDSAVYYC	ALGYYGNYRRYFDVWGAGTTVTVSS	115
SC16.88	QVQLQQSGAELARPGASVKLSCKAS	GYTCTSYW	MQWVKQRPGQGLEWIGA	IYPGDGDT	RYTQKFKGKATLTADKSSSTAYMQLSSLASEDSAVYYC	ARGRRTEAWFAYWGQGTLVTVSA	117

FIG. 11B (Cont.)

Protein Sequences of Exemplary DLL3 Modulator Heavy Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.101	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYNPALKSRLTISKDASSSQVFLKIASVDTAETATYYC	AHILDRAYYFDYWGQGTTLTVTS	119
SC16.103	QVTLKESGPGILKPSQTLSLTCSFS	GFSLSTSGM	IGWIRQPSGKGLEWLAH	IWWDDDK	YYNPSLKSQLTISKDSSRNQVFLKITSVDTADTATYYC	ARRGTAYYFDYWGQGTTLTVSS	121
SC16.104	QVQLKESGPDLVQPSQTLSLTCTVS	GFSLTFYG	VHWVRQPPGKGLEWVGT	MGWDDKK	YYNSALKSRLSISRDTSKNQVFLKLSSLQTEDTAMYYC	TRGGTGFDYWGQGTTLTVSS	123
SC16.105	QVQLQQPGAELVKPGASVKLSCKAS	GYTFTSYW	MHWVKQRPGQGLEWIGV	INPSNGRT	NYNEKFKSKATLTVDKSSSTAYMQLSSLTSEDSAVYYC	ARRRELGTLYAMDYWGQGTSVTVSS	125
SC16.106	QVQLKQSGPGLVAPSQSLFITCTVS	GFSLTSYE	INWVRQPPGKGLEWLGV	IWTGGST	NYNSALISRLSISKDNSKSLVFLKMNSLQTDDTAIYYC	VRGVYAMDYWGQGTSVTVSS	127
SC16.107	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTNYV	MHWVKQKPGQGLEWIGY	INPYNDGT	KYNEKFKGKATLTSDKSSTTAYMALSSLTSEDSAVYYC	AVAYYSNWGFAYWGQGTLVTVSA	129
SC16.108	QVQLEESGAELARPGASVKLSCKAS	GYSYW	MQWIKQRPGQGLEWIGA	IYPGNGDT	RYTQKFKGKATLTADKSSSTAYMQLSSLASEDSAVYYC	ARSPAYYRYGEGYFDYWGQGTTLTVSS	131
SC16.109	QIQLVQSGPELKKPGETVKISCKAS	GYTFTNYG	MNWVKQAPGKGLKWMGW	INTYTGEP	AYADDFKGRFAFSLETSASAAYLQINNLKNEDTATFFC	ANMRPTRGFAYWGQGTLGTVSA	133
SC16.110	EVQLQQSGPGLVRTGASVKISCKAS	GYSFTGYY	MHWVKQSHGKSLEWIGY	ISCYNGAT	TYNQNFKGKATFIVDTSSSTAYMQFNSLTSEDSAVYYC	ARSDGGHAMDYWGQGTSVTVSS	135
SC16.111	EVQLQQSGPELEKPGASVKISCKAS	GYSFTGYN	MNWVKQSNGKSLEWIGN	IDPYYGGS	SYKQKFEGKATLTVDKSSSTAYMQLKSLTSEDSAVYYC	ARGGSNFFDYWGQGTTLTVSS	137
SC16.113	DVKLVESGGGLVKPGGSLKLSCAAS	GFTFSSYT	MSWVRQTPEKRLEWVAT	ISSGGSYP	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	TRDVYDGYSYWGQGTTLTVSS	139
SC16.114	EVQLQQSGAELVKPGASVKLSCTAS	GFNIKDTY	IHWVKQRPEQGLEWIGR	IDPANGNT	KYDPKFQGKATITPDTSSNTAYLQLSSLTSEDTAVYYC	ARSWRNYGSSPWYFDVWGAGTTVTVSS	141
SC16.115	DVKLVESGGGLVKPGGSLKLSCAAS	GFTFSSYT	MSWVRQTPEKRLEWVAT	ISSGGSYP	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	TRDVYDGYSYWGQGTTLTVSS	143
SC16.116	QVQLKQSGPGRVQPSQSLSITCTVS	GFSLTSNGV	VHWVRQSPGKGLEWLGV	LWSGGST	DYNAAFISRLSISKDNYKSQVFFKMNSLQANDTAIYYC	ARNNNRYGAMDYWGQGTSVTVSS	145
SC16.117	QVQLKESGPGLVAPSQSLSIPCTVS	GFSLTNYG	VHWVRQPPGKGLEWLGV	IWAGGIT	NYNSALMSRLSISEDNSKSQVFLKMNSLQTDDTAMYYC	ARNLGPYAMDYWGQGTSVTVSS	147
SC16.118	EVQLQQSGPDLVKPGASVKISCKAS	GYSFTGYY	MHWVKQSHGKSLEWIGR	VNPNNGGT	SYNQKFKGKAILTADKSSSTAYMELRSLTSEDSAVYYC	ARGSYDYAEGWGQGTLVTVSA	149
SC16.120	EIQLQQSGPELVKPGASVKVSCKAS	GYAFTSYN	MYWVMQSHGKSLEWIGY	VDPYNGGT	SYNQKFKGKATLTVDKSSSTAYMHLNSLTSEDSAVYYC	ARENYRYFDYWGQGTTLTVSS	151
SC16.121	EVQLVESGGGLVQPKGSLKLSCAAS	GFTFNTYA	MNWVRQAPGKGLEWVARIR	IKSNNYAT	YYADSVKDRFTISRDDSQNMLYLQMNNLKTEDTAVYYC	VRQGYSYDWGPWFAYWGQGTLVTVSA	153
SC16.122	EVQLVESGGGLVKPGGSLKLSCAAS	GFTFSDYY	MFWVRQTPEKRLEWVAT	ISDGGSY	TYFPDSVKGRFTISRDNAQNNLYLQMSSLKSEDTAMYYC	ARAGTLYAMDYWGQGTSVTVSS	155
SC16.123	QVALKESGPGILQPSQTLSLTCSFS	GFSLSTSGMG	VGWIRQPSGKGLEWLAH	IWWDDVK	RYNPALKSRLTISKDTSSSQVFLKIASVDTADTATYYC	ARMEDYGSSSYFDFWGHGTTLTVSS	157
SC16.124	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTSYV	MHWVKQKPGQGLEWIGY	INPYNDGT	KYNEKFKGKATLTSDKSSSTAYMELSSLTSEDSAVYYC	ARGALYYGNYLGYFDVWGAGTTVTVSS	159
SC16.125	SDVQLQESGPDLVKPSQSLSLTCTVT	GYSITSGYS	WHWIRQFPGNKLEWMGY	IHYSGST	NYNPSLKSRISITRDTSKNQFFLQFKSVTTEDSATYYC	ALEGNYDGFAYWGQGTLVTVS	161

FIG. 11B (Cont.)

Protein Sequences of Exemplary DLL3 Modulator Heavy Chain Variable Regions

mAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
SC16.126	QVQMKESGPGLVAPSQSLSITCTVS	GSSLTNYG	VHWVRQPPGKGLEWLGV	IWAGGST	NYNSALMSRLSISKDNSKSQVFLKMNSLQTDDTAMYYC	ARDWEGWFAYWGQGTLVTVSA	163
SC16.129	QVQLKESGPGLVAPSQSLSITCTVS	SGFSLTDYG	VSWIRQPPGKGLEWLGV	IWGGGST	YYNSALKSRLSISKDNSKSQVFLELNSLQTDDTAIYYC	AKHYGHYAAYWGQGTLVTVSA	165
SC16.130	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTSYV	MHWVKQKPGQGLEWIGY	INPYNDGT	EYNEKFKGKATLTSDKSSSTAYMELSSLTSEDSAVYYC	ARGVYDGYSYFDYWGQGTTLTVSS	167
SC16.131	QVQLKESGPGLVAPSQSLSITCTVS	GFSLTNYGV	VHWVRQPPGKGLEWLGV	IWAGGIT	NYNSALMSRLSISEDNSKSQVFLKMNSLQTDDTAMYYC	ARNLGPYAMDYWGQGTSVTVSS	169
SC16.132	QVQLKESGPGLVAPSQSLSITCTVS	GFSLTDYG	VSWIRQPPGKGLEWLGV	VWGGGST	YYNSALKSRLSITKDNSKSQVFLKMNSLQTDDTAMYYC	AKQRGQYGAYWGQGTLVTVSA	171
SC16.133	QVQLKESGPGLVAPSQSLSITCTVS	GFSLTNYA	VHWVRQSPGKGLEWLGV	IWSDGST	DYNAAFISRLSISKDNSKSQVFFKMNSLQADDTAMYYC	ARKKGGWFPWFAYWGQGTLVTVSA	173
SC16.134	EVQLQQSGPDLVKPGASVKISCKAS	GYSFTGYY	MHWVKQSHGKRLEWIGR	VNPNNGGT	NYNQKFKGKAILTVDKSSSTAYMELRSLTSEDSAVYYC	ARGSYDNAEGWGQGTLVTVSA	175
SC16.135	QVQLQQSGAELVRPGTSVKVSCKAS	GYAFTNYL	IEWVKQRPGQGLEWIGV	INPGSGGT	NSNEKFKAKATLTADKSSSTAYMQLSSLTSADSAVYFC	ARSDYDYAFYAMDYWGQGTSVTVSS	177
SC16.136	EFQLQQSGPELVKPGASVKMSCKAS	GYTFTSYV	MHWVKQKPGQGLEWIGY	INPYNDGT	KYNEKFKGKATLTSDKSSSTAYMELSSLTSEDSAVYYC	ARDRSGYEDYYGMDYWGQGTSVTVSS	179
SC16.137	EVQLVESGGDLVKPGGSLKLSCAAS	GFTFSSYG	MSWVRQTPDKRLEWVAT	ISSGGSYT	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	ARRRADAMDYWGQGTSVTVSS	181
SC16.138	QVQLKESGPGLVAPSQSLSITCTVS	GFSLTDYG	VSWIRQPPGKGLEWLGV	VWGGGST	YYNSALKSRLSISKDNSKSQVFLKMNSLQTDDTAMYYC	AKQRGQYGAYWGQGTLVTVSA	183
SC16.139	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTNYV	MHWVKQKPGQGLEWIGY	INPYNDGT	KYNEKFKGKATLTSDKSSTTAYMALSSLTSEDSAVYY	AVAYYSNWGFAYWGQGTLVTVSA	185
SC16.140	QVQLQQSGPELVRPGASVKMSCKAS	GYTFTSYW	MHWVKQRPGQGLEWIGM	IDPSNSET	RLNQKFKDKATLNVDKSSNTAYMQLSSLTSEDSAVYYC	AVMDYYFDYWGQGTTLTVSS	187
SC16.141	QVQLKQSGPGLVAPSQSLFITCTVS	GFSLTSYE	INWVRQPPGKGLEWLGV	IWTGGST	NYNSALISRLSISKDNSKSLVFLKMNSLQTDDTAIYYC	VRGVYAMDYWGQGTSVTVSS	189
SC16.142	EVQLQQSGPELVKPGASVKISCKAS	GYTFTDYN	MHWVKQSHGKSLEWIGF	FYPYNGNT	VYSQKFKSKATLTVDNSSSTAYMELRSLTSEDSAVYYC	ARLNWEGYWGQGTTLTVSS	191
SC16.143	QVQLQQSGPELVKPGASVRISCKAS	GYTFTSYY	IHWVKQRPGQGLEWIGW	IYPGNGNT	KYNEKFKGKATLTADKSSSTAYMQISSLTSEDSAVYFC	ARERWLLLWFAYWGQGTLVTVSA	193
SC16.144	QIQLVQSGPELKKPGETVKISCKAS	GYTFTNYG	MNWVKQAPGKGLKWVGW	INTYTGEP	TYADDFKGRFAFSLETSASTAYLQIDNLKNEDTATYFC	ARVGDYVGFDYWGQGTTLTVSS	195
SC16.147	QIQLVQSGPELTKPGETVKISCKAS	GYTFTDYS	LHWVKQALGKGLKWMGW	INTETGEP	AYADDFKGRFAFSLETSASTAYLQINDLKNEDTTTYFC	GIYDGYAMDYWGQGTSVTVSS	197
SC16.148	QIQLVQSGPELKKPGETVKISCKAS	GYTLTNYG	MNWVKQAPGKGLKWMGW	INTYTGEP	TYADDFKGRFAFSLETSARIVYLQINNLKNEDTATYFC	AKYEAHEGFVYWGQGTLVTVSA	199
SC16.149	QVQLKESGPGLVAPSQSLSITCAVS	GFSLTSFG	VHWVRQPPGKGLEWLGV	IWAGGSTN	YYSALMSRLSISIDNSKSQVFLKMNSLQTDDTAMYYC	ARDWEGWFAYWGQGTLVTVSA	201
SC16.150	EIQLQQSGPELVKPGASVKVSCKAS	GYAFTSYN	MYWVSQSHGKSLEWIGY	IDPYNGGT	SYNQKFRGKATLTVDKSSSTAYMHLNSLTSEDSAVYYC	ARENYRYFDFWGQGTTLTVSS	203

FIG. 11B (Cont.)

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Protein Sequences of Exemplary Humanized DLL3 Modulator Heavy Chain Variable Regions

hmAb	FR1	CDR1	FR2	CDR2	FR3	CDR3	SEQ ID NO.
hSC16.13	QITLKESGPTLVKPTQTLTLTCTFS	GFSLSTSGMG	VGWIRQPPGKALEWLAH	IWWDDVK	RVSPSLKSRLTITKDTSKNQVVLTMTNMDPVDTATYYC	ARIVSFDMDVVSAMDYWGQGTLVTVSS	205
hSC16.15	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTRYW	IHWIRQAPGQGLEWMGY	INPTTVYT	EFNQNFKDRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARGGSNFFDYWGQGTTVTVSS	207
hSC16.25	QITLKESGPTLVKPTQTLTLTCTFS	GFSLSTSGMG	VGWIRQPPGKALEWLTD	IWWDDNK	YYNPSLKSRLTITKDTSKNQVVLTMTNMDPVDTATYYC	ARRVNYYYDPYYAMDYWGQGTTLVTVSS	209
hSC16.34	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTNYG	MNWVRQAPGQRLEWMGW	INTYTGDP	TYADDFKGRVTITRDTSASTAYMELSSLRSEDTAVYYC	ARIGGNSPSDYWGQGTTVTVSS	211
hSC16.56	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTNYG	MNWVRQAPGQGLEWMGW	INTYTGEP	TYADDFKGRVTMTTDTSTSTAYMELRSLRSDDTAVYYC	ARIGDSSPSDYWGQGTLVTVSS	213

FIG. 11B (Cont.)

Biochemical Characteristics of Selected DLL3 Modulators

Clone	Bin	Domain	Affinity (nM)	% Live Cells (*in vitro*)	Cyno XR	Mouse & Rat XR
SC16.4	F	EGF4	0.5[F]	49	N.D.	Yes
SC16.8	A	EGF5	0.5[F]	82	N.D.	Yes
SC16.10	E	EGF2	4.0[F]	18	N.D.	No
SC16.13	B	EGF2	2.0[B]	31	No[Y]	No
SC16.15	G	N-terminal	0.5[B]	24	Yes[B]	Yes
SC16.25	C	N-terminal	0.2[B]	28	Yes[B]	No
SC16.34	D	DSL	0.2[B]	12	Yes[B]	Yes
SC16.39	I	EGF6	1.0[F]	98	N.D.	Yes
SC16.46	A	EGF1	0.5[F]	19	No[Y]	Yes
SC16.51	H	N-terminal	2.0[F]	56	Yes[B]	Yes
SC16.56	D	DSL	1.0[B]	16	Yes[B]	Yes
SC16.65	B	EGF2	0.9[B]	13	No[B]	No
SC16.67	D	EGF3	0.5[F]	37	Yes[Y]	No

[B] Biacore; [F] ForteBio; [Y] Yeast Display

FIG. 12

Binding Characteristics of Exemplary DLL3 Modulators

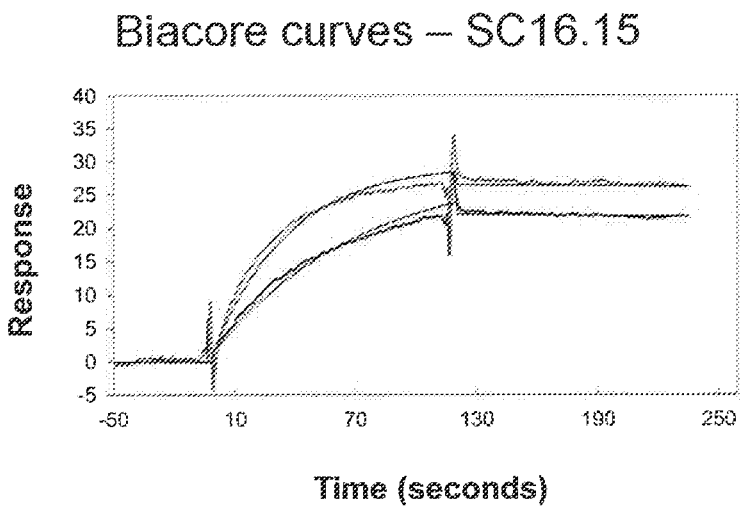


FIG. 13A

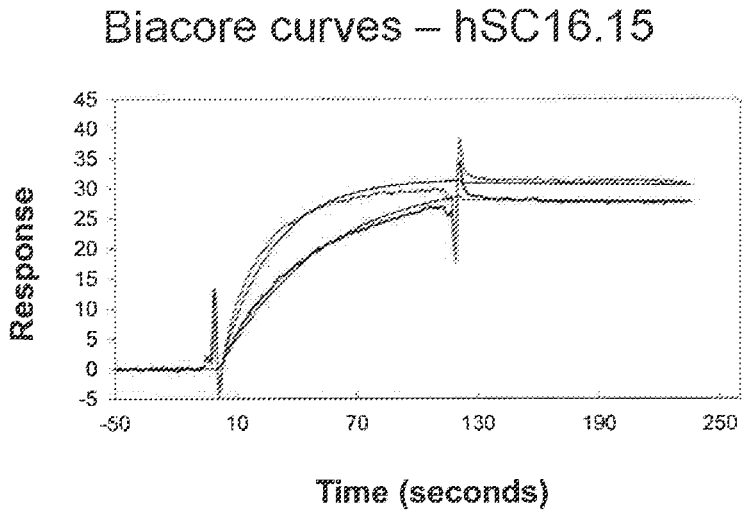


FIG. 13B

hClone	Bin	Mouse Ag Binding	Hu Ag Affinity (Murine mAb)	Hu Ag Affinity (Human mAb)
SC16.13	B	No	0.3nM	0.5nM
SC16.15	G	Yes	0.2nM	0.2nM
SC16.25	C	No	<0.2nM	<0.2nM
SC16.34	D	Yes	0.6nM	0.9nM
SC16.56	D	Yes	0.5nM	0.5nM

FIG. 13C

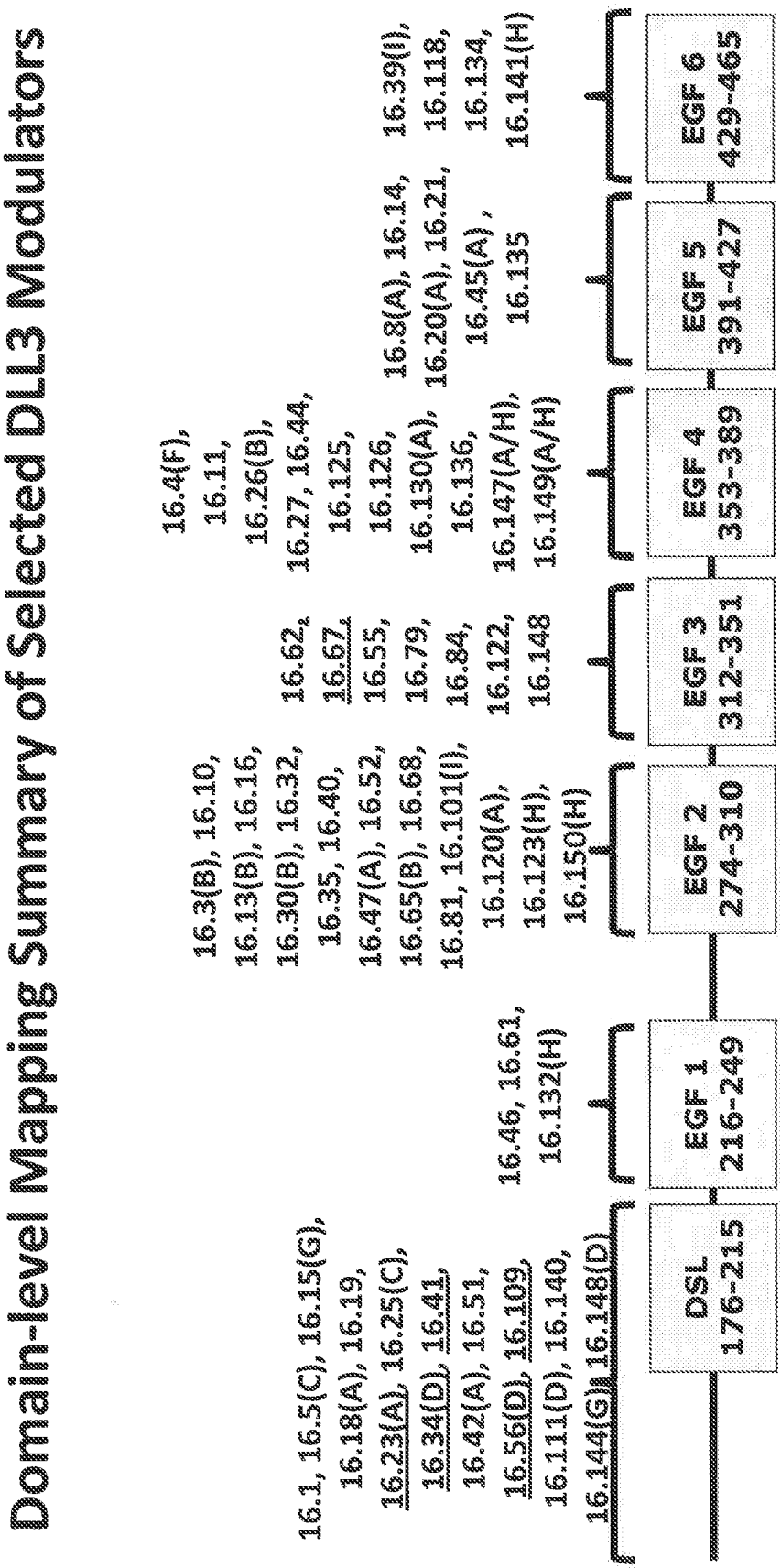

Domain-level Mapping Summary of Selected DLL3 Modulators
16.1, 16.5(C), 16.15(G), 16.18(A), 16.19, 16.23(A), 16.25(C), 16.34(D), 16.41, 16.42(A), 16.51, 16.56(D), 16.109, 16.111(D), 16.140, 16.144(G) 16.148(D)
16.46, 16.61, 16.132(H)
16.3(B), 16.10, 16.13(B), 16.16, 16.30(B), 16.32, 16.35, 16.40, 16.47(A), 16.52, 16.65(B), 16.68, 16.81, 16.101(I), 16.120(A), 16.123(H), 16.150(H)
16.4(F), 16.11, 16.26(B), 16.27, 16.44, 16.125, 16.126, 16.130(A), 16.136, 16.147(A/H), 16.149(A/H)
16.62, 16.67, 16.55, 16.79, 16.84, 16.122, 16.148
16.8(A), 16.14, 16.20(A), 16.21, 16.45(A), 16.135
16.39(I), 16.118, 16.134, 16.141(H)
DSL 176-215
EGF 1 216-249
EGF 2 274-310
EGF 3 312-351
EGF 4 353-389
EGF 5 391-427
EGF 6 429-465

FIG. 14A

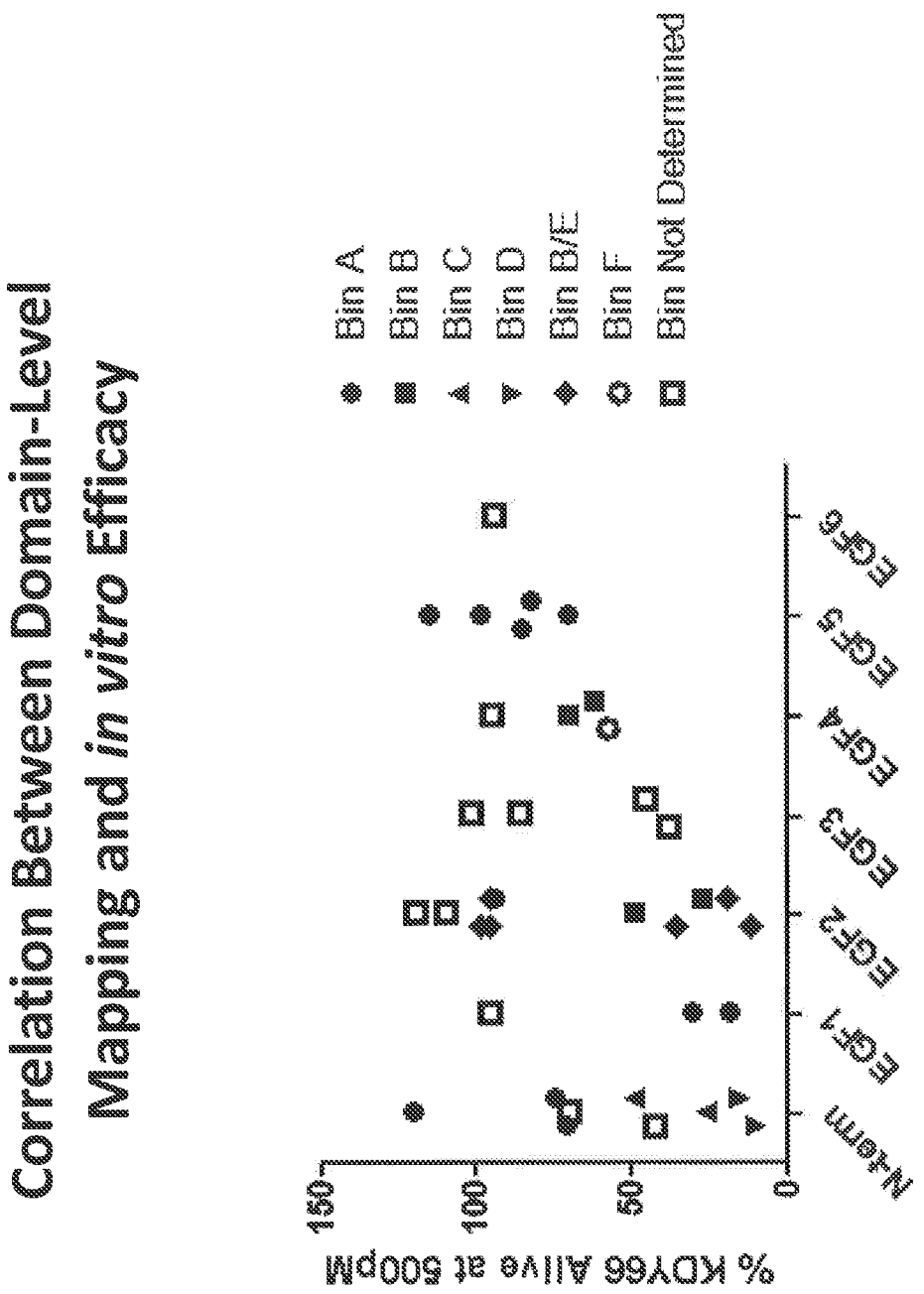

Correlation Between Domain-Level Mapping and in vitro Efficacy
Bin A
Bin B
Bin C
Bin D
Bin B/E
Bin F
Bin Not Determined
% KOY66 Alive at 500pM
150
100
50
0
Nterm
EGF1
EGF2
EGF3
EGF4
EGF5
EGF6

FIG. 14B

Selected DLL3 Modulators Detect Surface Expression of DLL3 in Engineered Lines

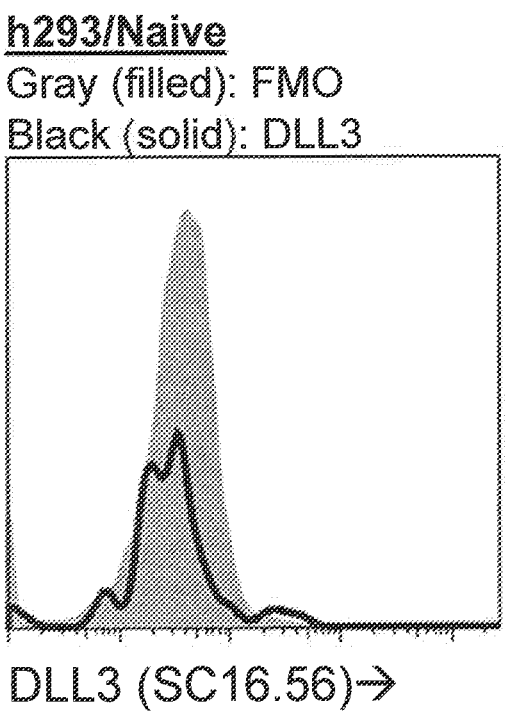


FIG. 15A

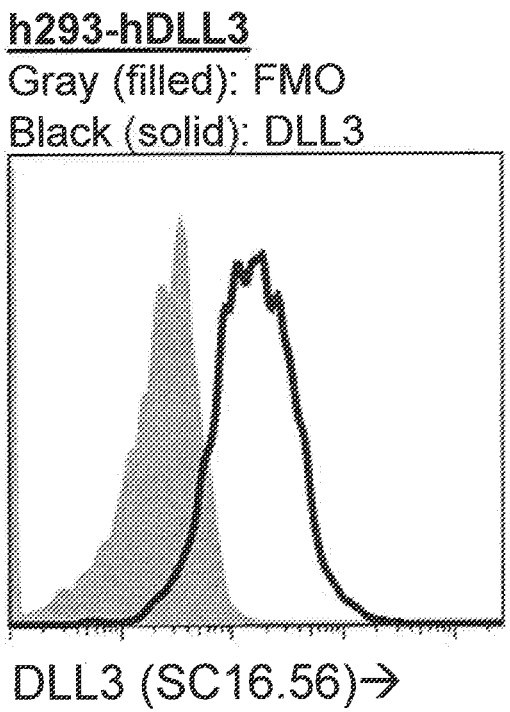


FIG. 15B

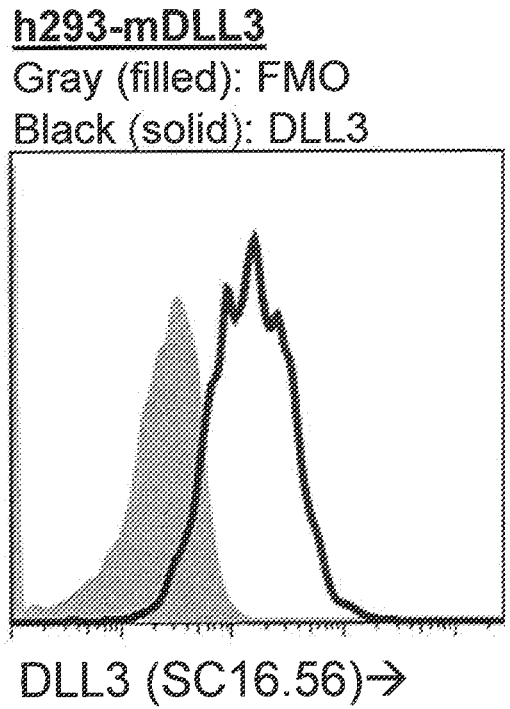


FIG. 15C

FIG. 16A FIG. 16B FIG. 16C

Immunohistochemistry Staining of DLL3 in NTX Tumors and Normal Human Tissues

NTX Tumor	SC16.65
KDY27p3	-
KDY66p4	+++, 80%
KDY67p2	+++, 70%
LU100p1	-
LU102p1	+++, 70%
LU109p2	+++, 70%
LU111p1	-/+, 10%
LU117p2	-/+, 70%
LU124p1	-/+, 10%
LU126p2	-
LU135p3	-
LU37p5	+++, 70%
LU50p1	-
LU64p1	+, 60%
LU73p2	-/+, 20%
LU80p3	-
LU86p1	+, 70%
LU95p1	+, 30%
LU49p2	-
OV26p2	-
SK11p4	-
SK13p3	-
SK19p3	+, 70%
SK23p1	-
SK29p2	-
SK6p4	-

FIG. 16D

Organ	SC16.65
Skin	-
Skin	-
Subcutis	-
Subcutis	-
Breast	-
Breast	-
Spleen	-
Spleen	-
Lymphnode	-
Lymphnode	-
Skeletal muscle	-
Skeletal muscle	-
Lung	-
Lung	-
Heart	-
Heart	-
Aorta	-
Aorta	-
Salivary gland	-
Salivary gland	-
Liver	-
Liver	-
Gallbladder	-
Gallbladder	-
Pancreas	-
Pancreas	-
Tonsil	-
Tonsil	-
Esophagus	-
Esophagus	-

Organ	SC16.65
Stomach	-
Stomach	-
Small intestine	-
Small intestine	-
Colon	-
Colon	-
Kidney, cortex	-
Kidney, cortex	-
Kidney, medulla	-
Kidney, medulla	-
Uterus	-
Uterus	-
Prostate	-
Prostate	-
Placenta	-
Placenta	-
Umbilical cord	-
Umbilical cord	-
Adrenal	-
Adrenal	-
Thyroid	-
Thyroid	-
Thymus	-
Thymus	-
Gray matter, cerebrum	-
Gray matter, cerebrum	-
White matter, cerebrum	-
White matter, cerebrum	-
Cerebellum	-
Cerebellum	-

FIG. 16E

Immunohistochemistry Staining of DLL3 in Human Tumors

Core	Tissues/Diagnosis	stage	SC16.65	CHGA
A1	Small cell carcinoma	I	-/+, 20%	+
A2	Small cell carcinoma	I	-/+, 10%	+
A3	Small cell carcinoma	I	-	-
A4	Small cell carcinoma	I	+, 40%	+
A5	Small cell carcinoma	I	++, 90%	+
A6	Small cell carcinoma	II	-	-
A7	Small cell carcinoma	I	-/+, 20%	-
A8	Small cell carcinoma	I	+/++, 70%	+
A9	Small cell carcinoma	I	++, 80%	+
B1	Small cell carcinoma	I	-	-
B2	Small cell carcinoma	I	-	-
B3	Small cell carcinoma	I	+, 70%	-
B4	Small cell carcinoma	II	+, 10%	+
B5	Small cell carcinoma	II	++, 70%	+
B6	Small cell carcinoma	I	++/+++, 90%	+
B7	Small cell carcinoma	II	+++, 90%	+
B8	Small cell carcinoma	II	++, 80%	+
B9	Small cell carcinoma	II	++, 70%	+
C1	Small cell carcinoma	II	-	-
C2	Small cell carcinoma	II	+, 40%	+
C3	Small cell carcinoma	II	+, 10%	+
C4	Small cell carcinoma	II	+, 50%	+
C5	Small cell carcinoma	II	-	-
C6	Small cell carcinoma	II	++/+++, 90%	+
C7	Small cell carcinoma	II	+++, 90%	+
C8	Small cell carcinoma	II	+, 50%	+
C9	Small cell carcinoma	I	++/+++, 80%	+

Core	Tissues/Diagnosis	stage	SC16.65	CHGA
D1	Small cell carcinoma	II	-	-
D2	Small cell carcinoma	II	+, 20%	+
D3	Small cell carcinoma	II	+, 30%	+
D4	Small cell carcinoma	IIIa	+, 10%	+
D5	Small cell carcinoma	IIIa	-	-
D6	Small cell carcinoma	II	++/+++, 90%	+
D7	Small cell carcinoma	II	+, 70%	+
D8	Small cell carcinoma	II	+++, 90%	+
D9	Small cell carcinoma	IIIa	+, 70%	-
E1	Small cell carcinoma	IIIa	+, 20%	+
E2	Small cell carcinoma	IIIa	+, 10%	+
E3	Small cell carcinoma	IIIb	+, 20%	+
E4	Small cell carcinoma	IIIa	+, 70%	+
E5	Empty core		-	-
E6	Small cell carcinoma	IIIb	+, 70%	+
E7	Small cell carcinoma	IIIa	++, 70%	-
E8	Small cell carcinoma	IIIb	++, 80%	+
E9	Small cell carcinoma	IIIb	++, 90%	+

FIG. 16F

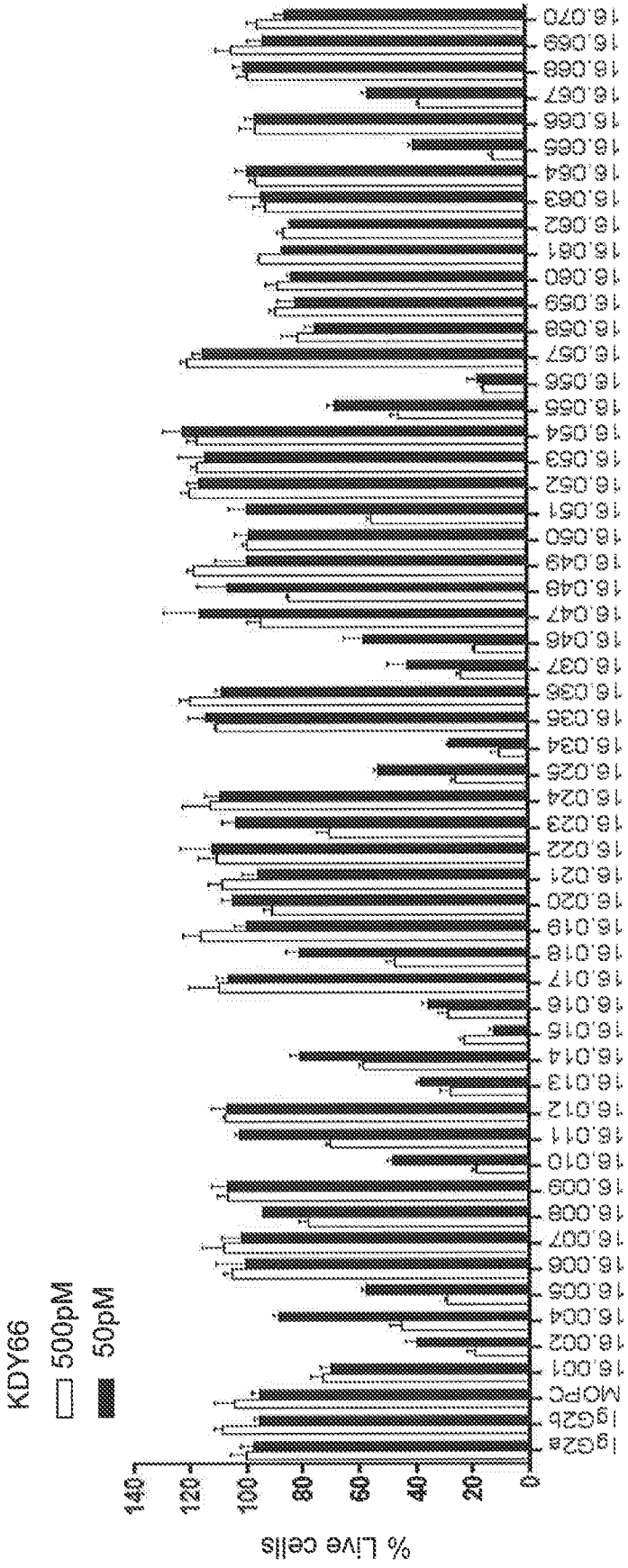

Exemplary DLL3 Modulators Mediate
Killing of Tumor Cells Expressing DLL3
KDY66
500pM
50pM
% Live cells
0
20
40
60
80
100
120
140
IgG2a
IgG2b
MOPC
16.001
16.002
16.004
16.005
16.006
16.007
16.008
16.009
16.010
16.011
16.012
16.013
16.014
16.015
16.016
16.017
16.018
16.019
16.020
16.021
16.022
16.023
16.024
16.025
16.034
16.036
16.036
16.037
16.046
16.047
16.048
16.049
16.050
16.051
16.052
16.053
16.054
16.055
16.056
16.057
16.058
16.059
16.060
16.061
16.062
16.063
16.064
16.065
16.066
16.067
16.068
16.069
16.070

FIG. 17A

Exemplary DLL3 Modulators Mediate
Killing of Engineered Cells Expressing DLL3
293-hDLL3
250pM
25pM
% Live cells
120
100
80
60
40
20
0
IgG2b
16.101
16.102
16.103
16.104
16.105
16.106
16.107
16.108
16.109
16.111
16.112
16.113
16.114
16.115
16.116
16.117
16.118
16.119
16.121
16.122
16.123
16.124
16.125
16.126
16.127
16.128
16.129
16.131
16.132
16.133
16.134
16.135
16.136
16.137
16.138
16.139
16.141
16.142
16.143
16.144
16.145
16.146
16.147
16.148
16.149
16.110
16.120
16.130
16.140
16.150
16.004
16.013
16.034
16.037

FIG. 17A (Cont.)

DLL3 Modulators Mediate Delivery of Cytotoxic Agents

Antibody	EC50 (pM)
SC16.34	5.7pM
SC16.15	0.14pM

FIG. 17B

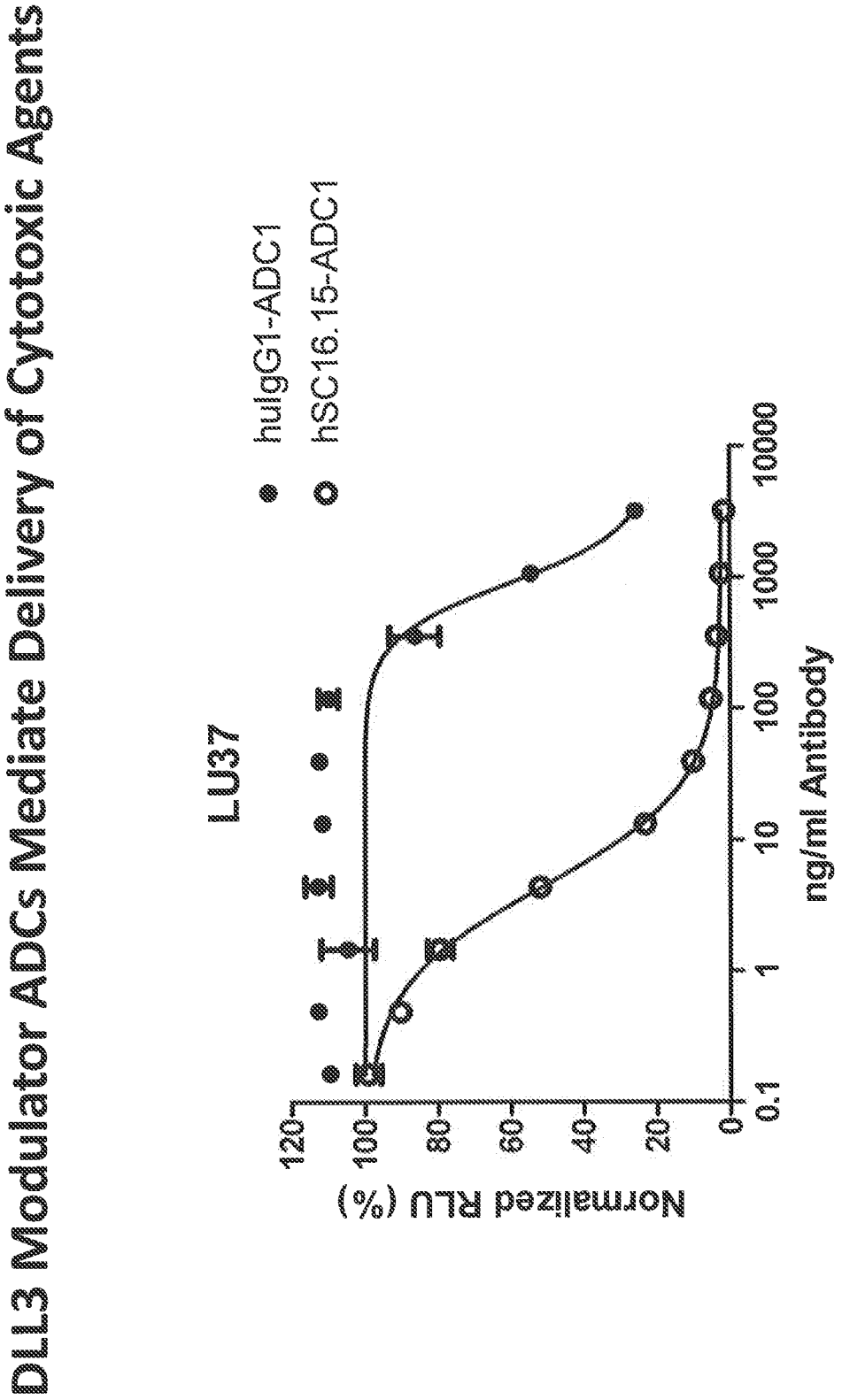

DLL3 Modulator ADCs Mediate Delivery of Cytotoxic Agents
LU37
huIgG1-ADC1
hSC16.15-ADC1
Normalized RLU (%)
120
100
80
60
40
20
0
0.1
1
10
100
1000
10000
ng/ml Antibody

FIG. 17C

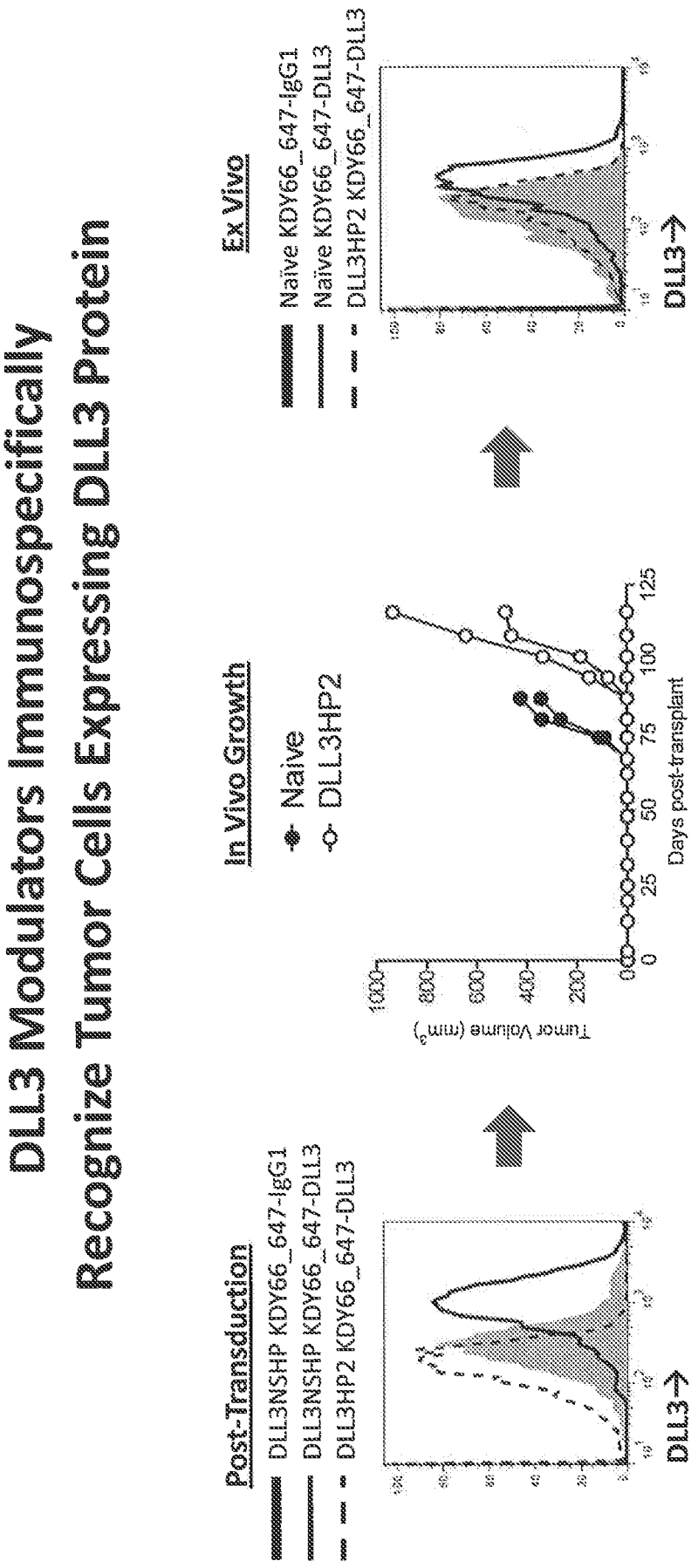


FIG. 18A FIG. 18B FIG. 18C

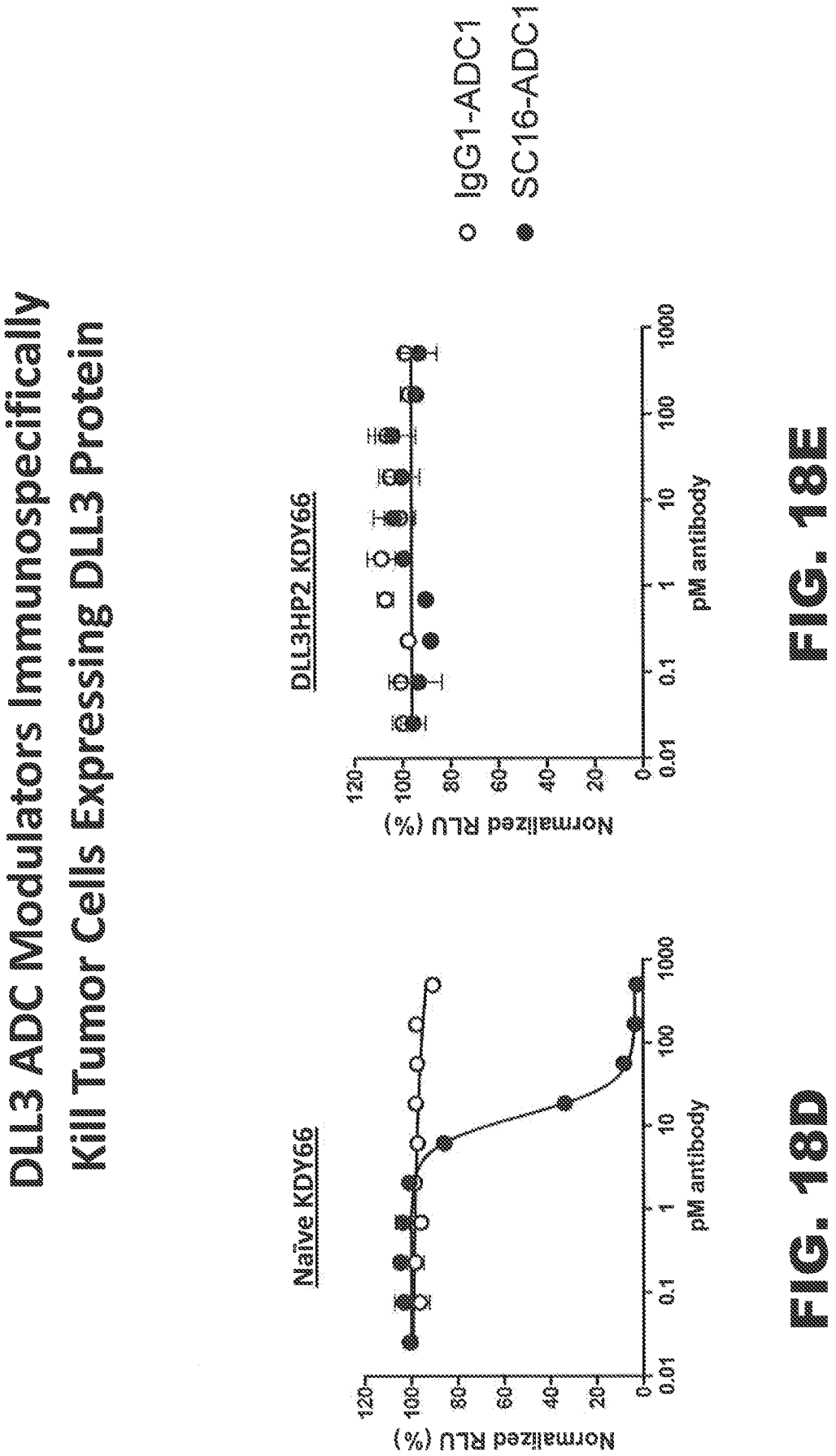


FIG. 18D

FIG. 18E

DLL3 ADC Modulators Suppress NET NTX Tumor Growth *in vivo*

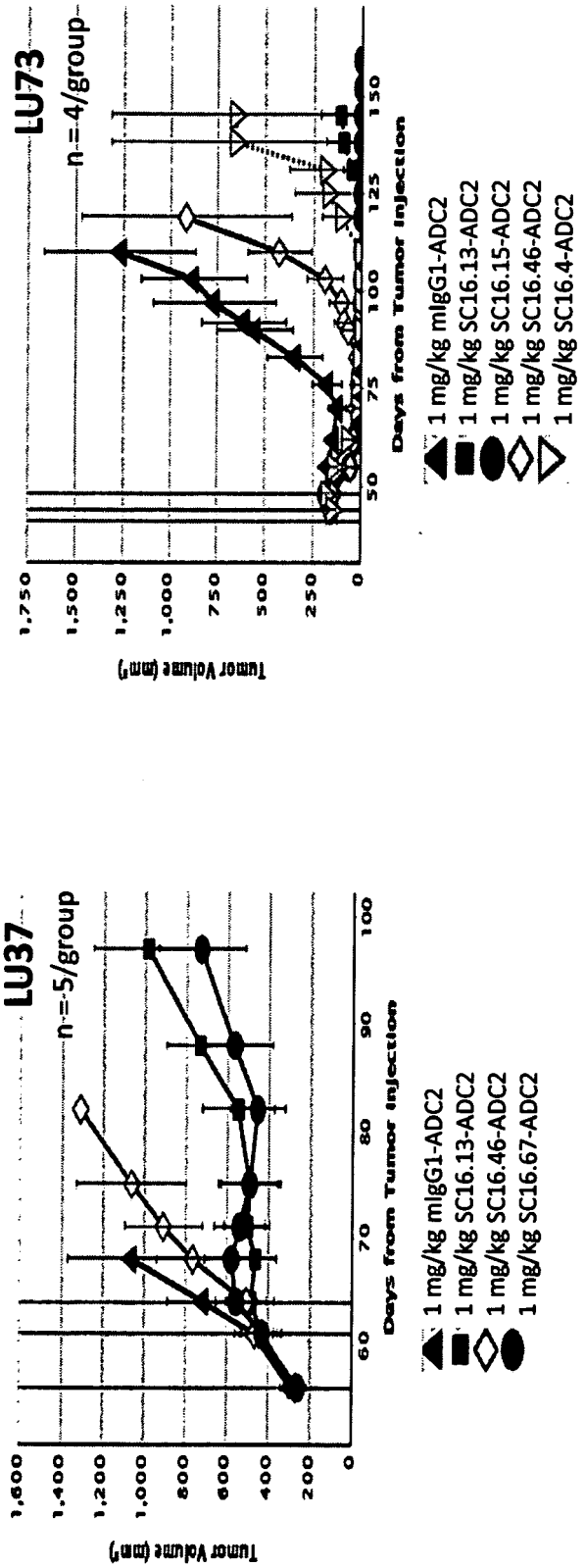


FIG. 19A

FIG. 19B

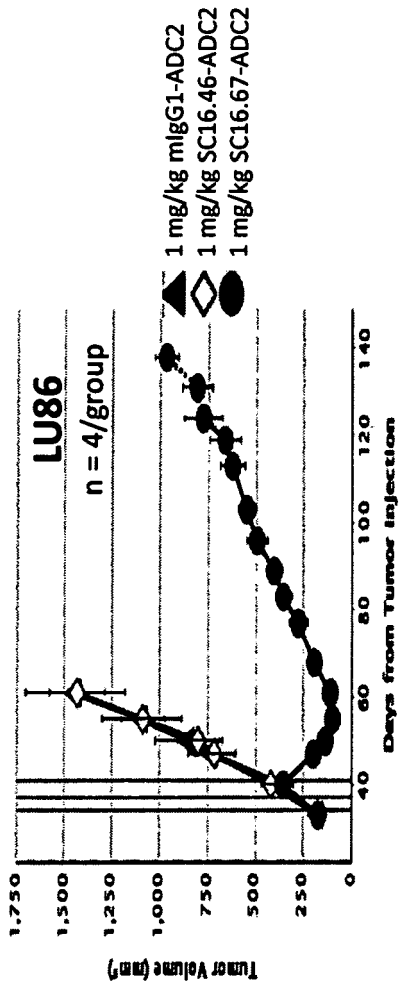


FIG. 19C

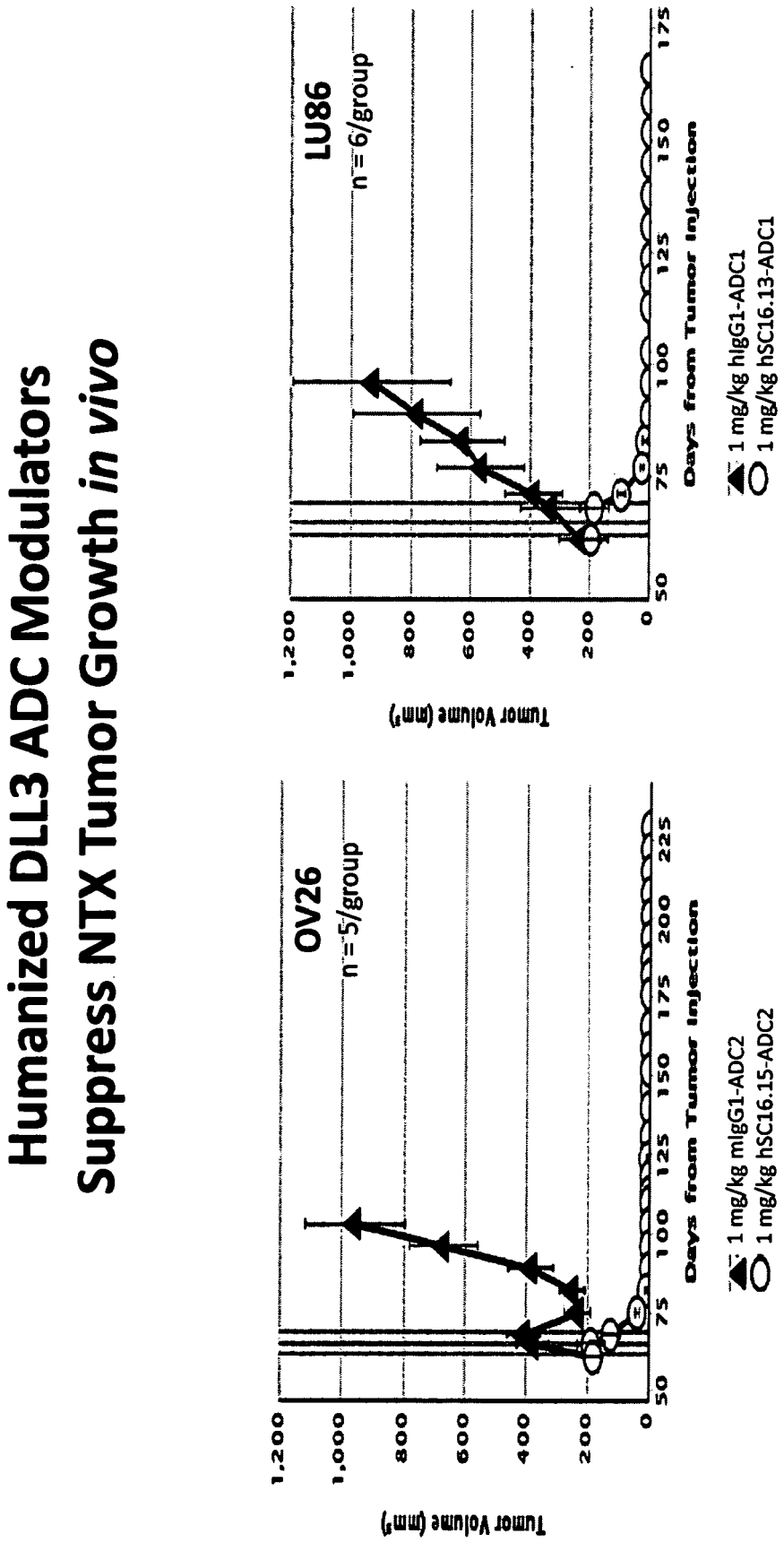


FIG. 20A

FIG. 20B

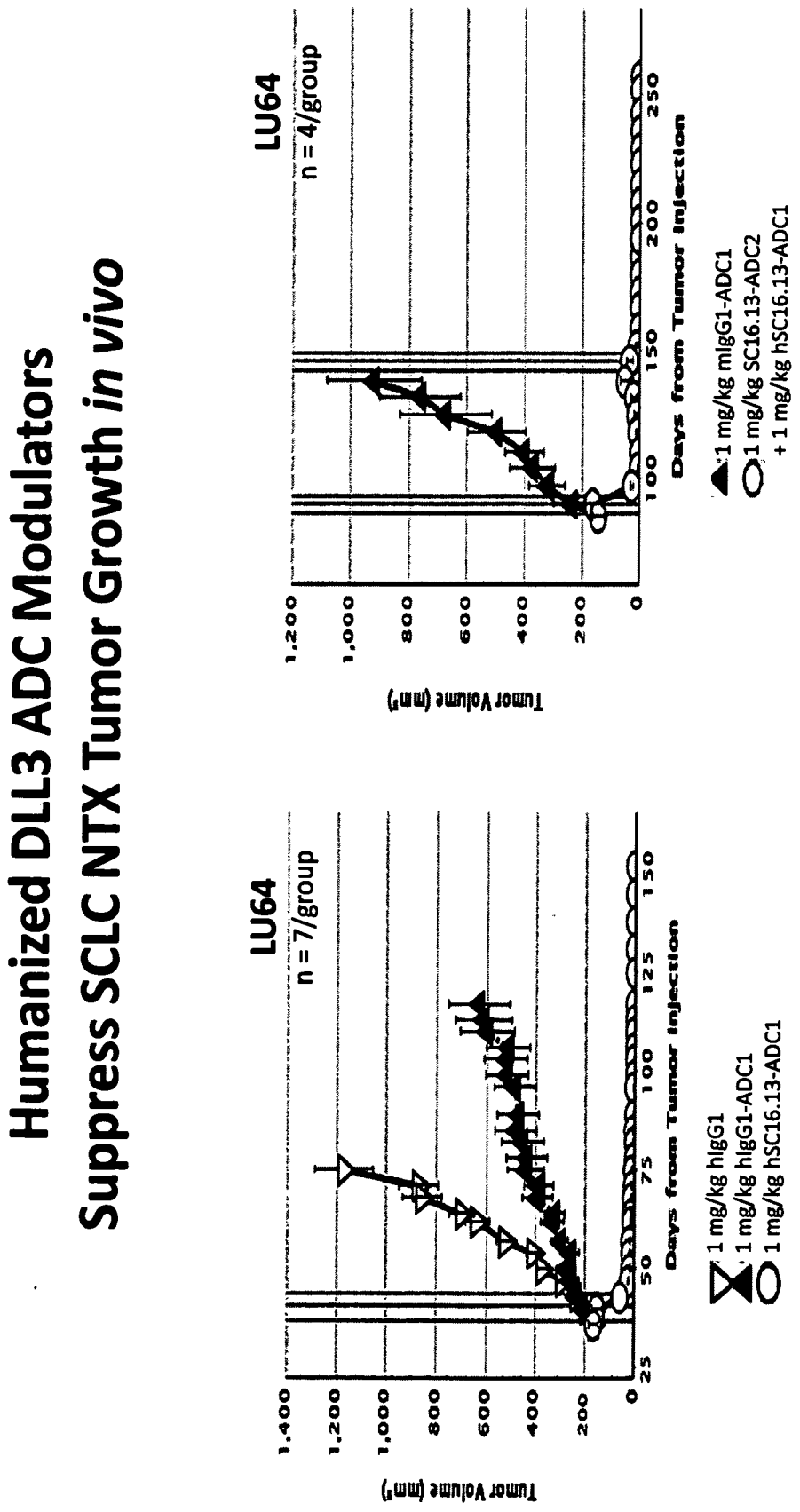


FIG. 20C

FIG. 20D

FIG. 20E

FIG. 20F

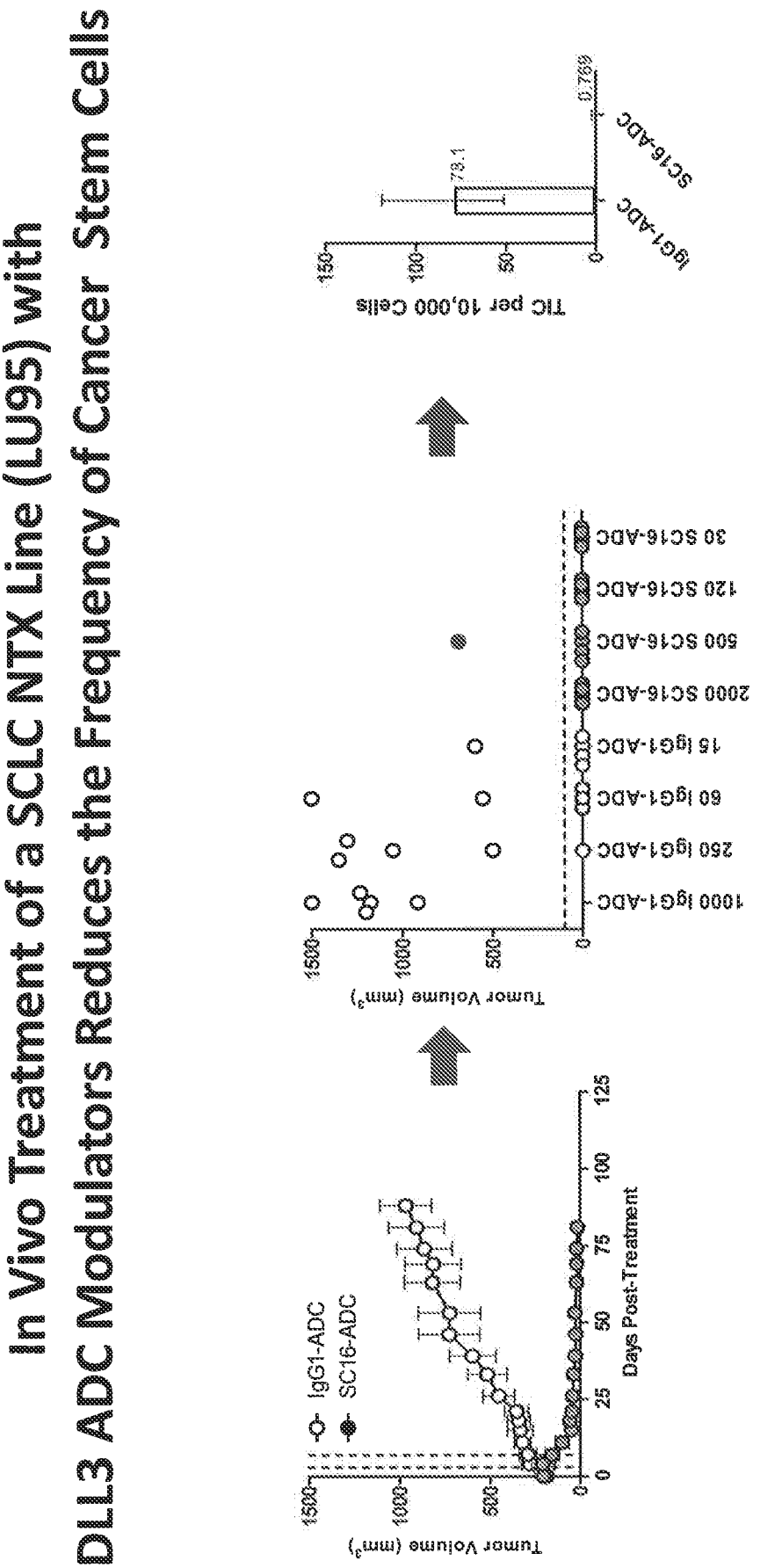


FIG. 21A

FIG. 21B

FIG. 21C

In Vivo Treatment of a SCLC NTX Line (LU64) with DLL3 ADC Modulators Reduces the Frequency of Cancer Stem Cells

FIG. 21D

FIG. 21E

FIG. 21F