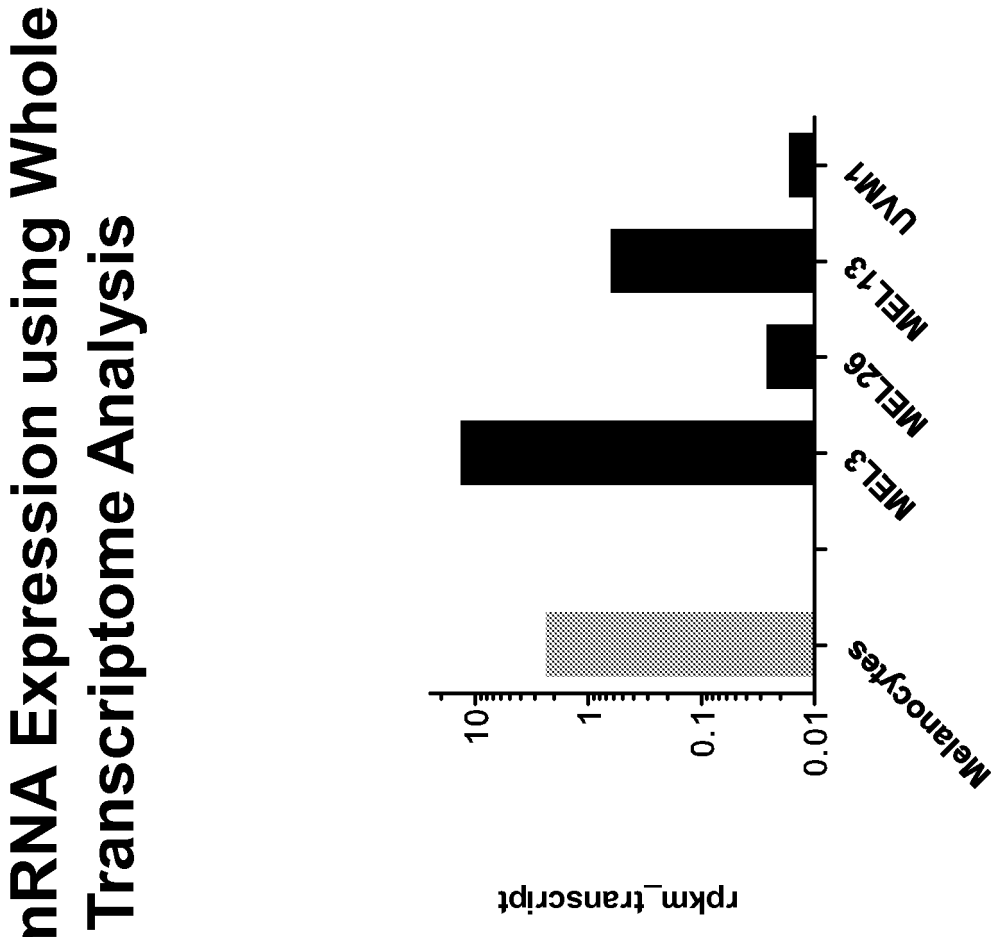
DLL3 mRNA Expression using Whole Transcriptome Analysis
rpkm_transcript
10
1
0.1
0.01
Melanocytes
MEL3
MEL26
MEL13
UVM1

FIG. 1

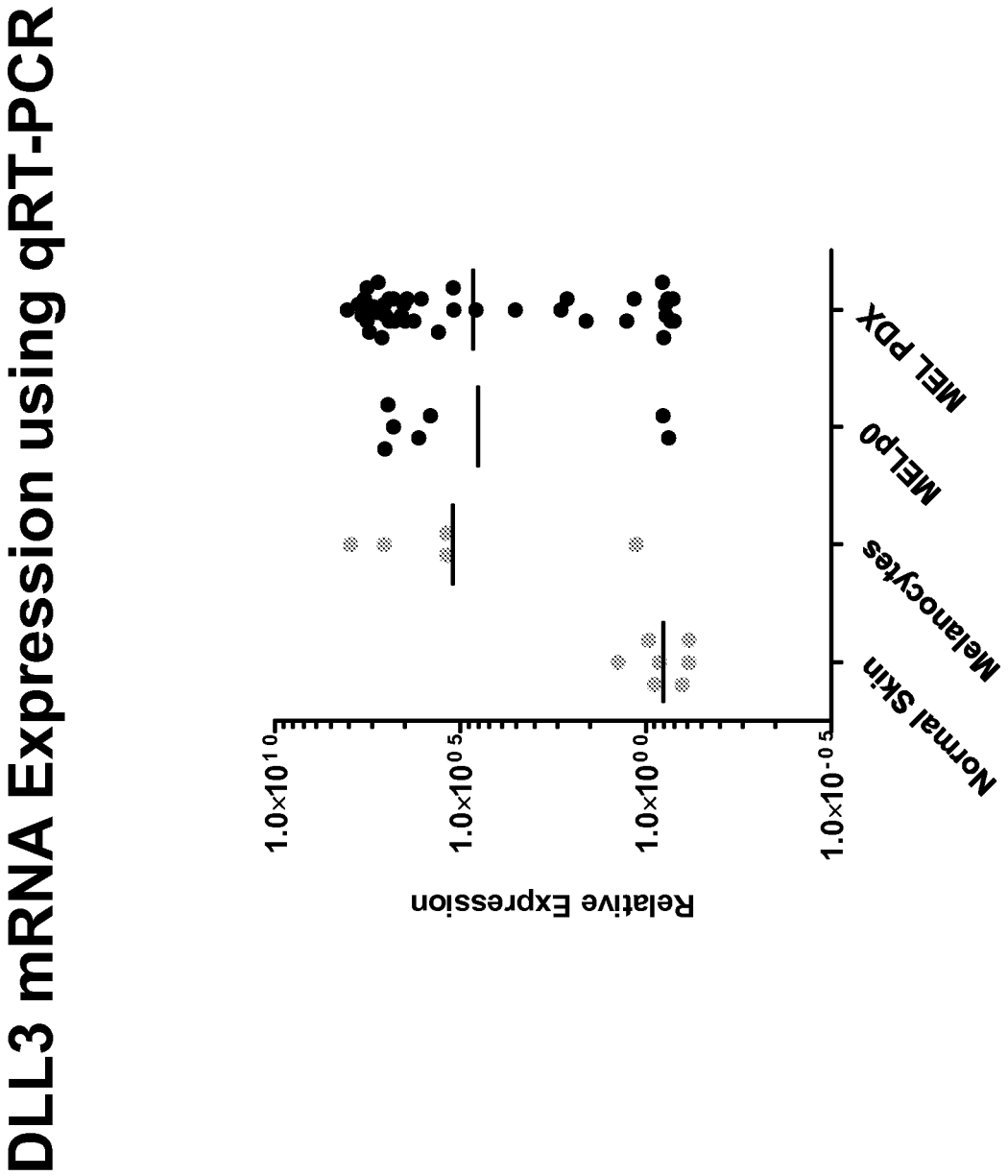
DLL3 mRNA Expression using qRT-PCR
Relative Expression
1.0×10^10
1.0×10^05
1.0×10^00
1.0×10^-05
Normal Skin
Melanocytes
MELp0
MEL PDX

FIG. 2

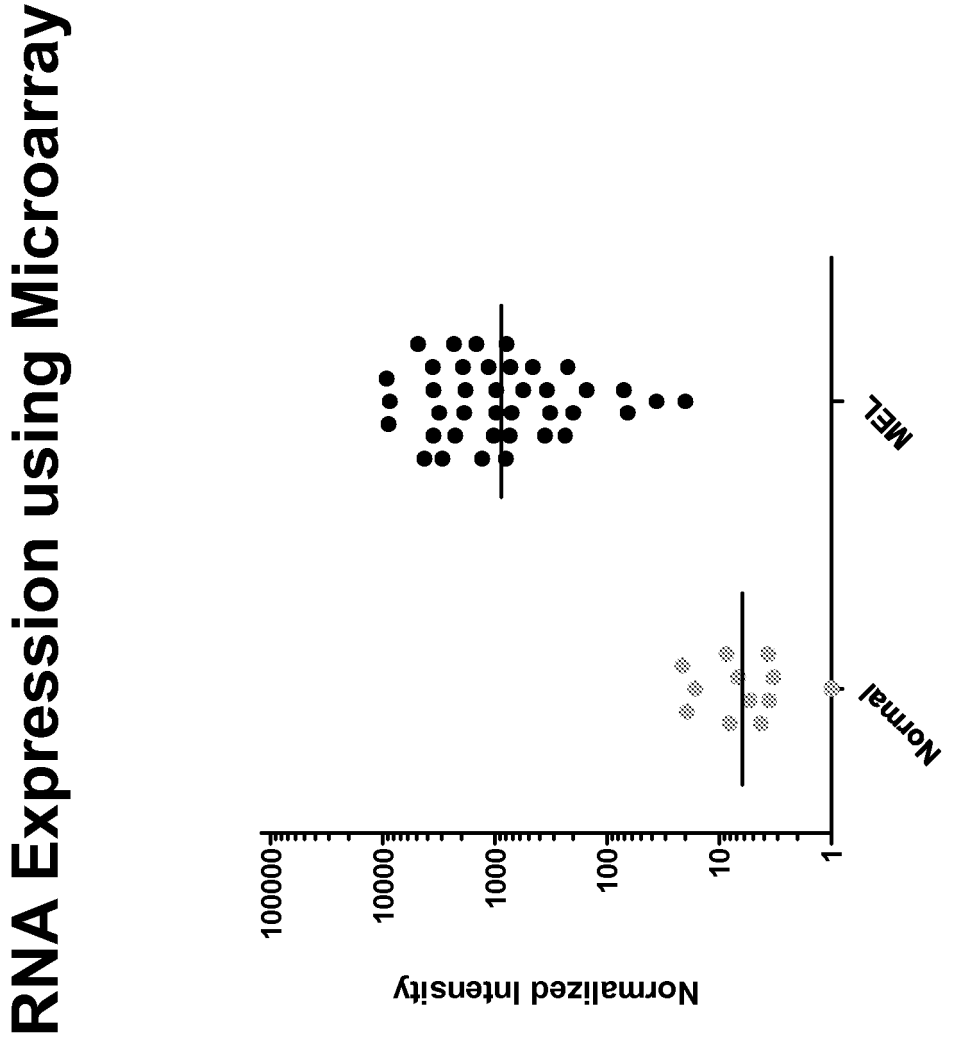
DLL3 mRNA Expression using Microarray
Normalized Intensity
100000
10000
1000
100
10
1
Normal
MEL

FIG. 3

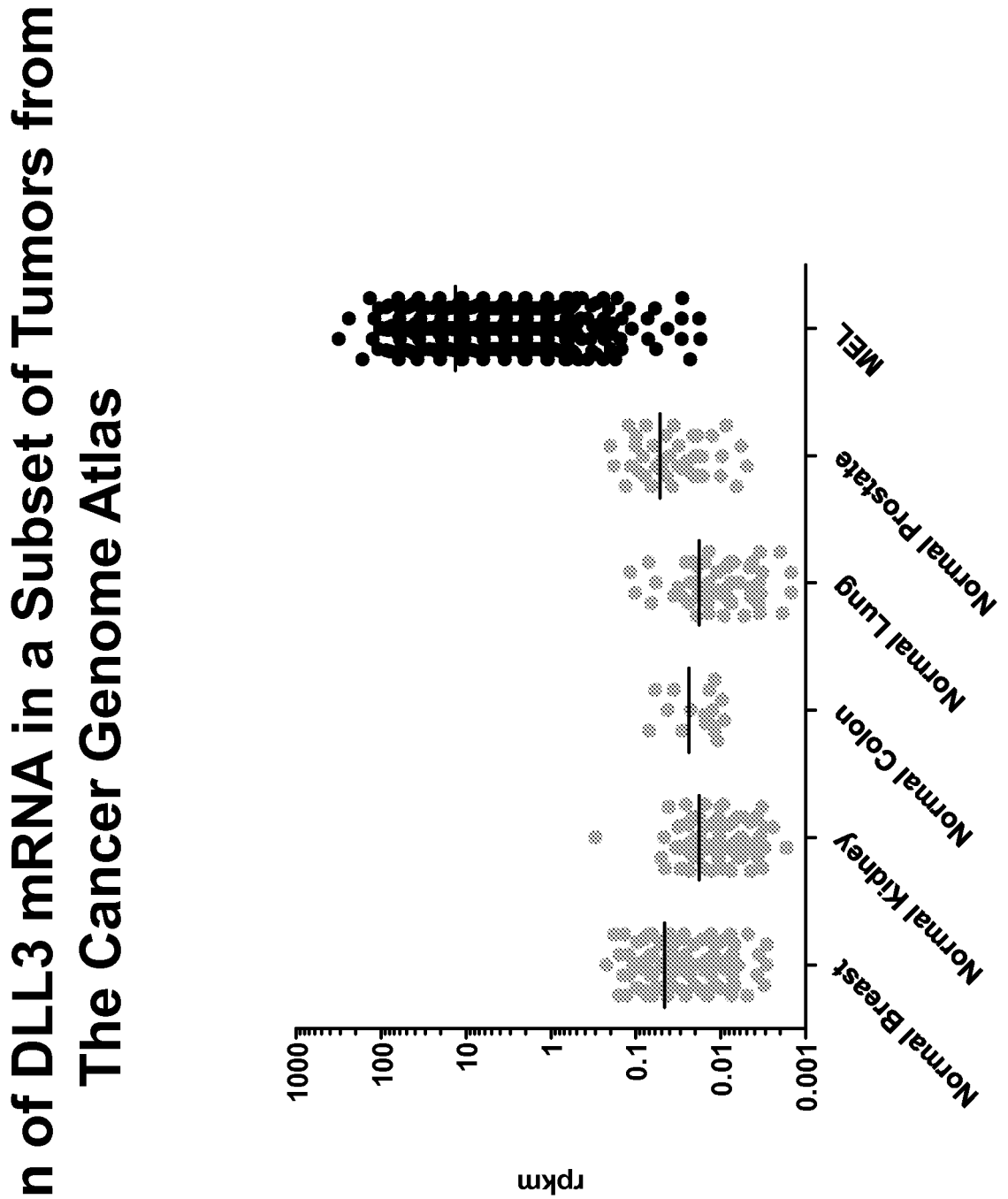
Expression of DLL3 mRNA in a Subset of Tumors from The Cancer Genome Atlas
rpkm
1000
100
10
1
0.1
0.01
0.001
Normal Breast
Normal Kidney
Normal Colon
Normal Lung
Normal Prostate
MEL

FIG. 4A

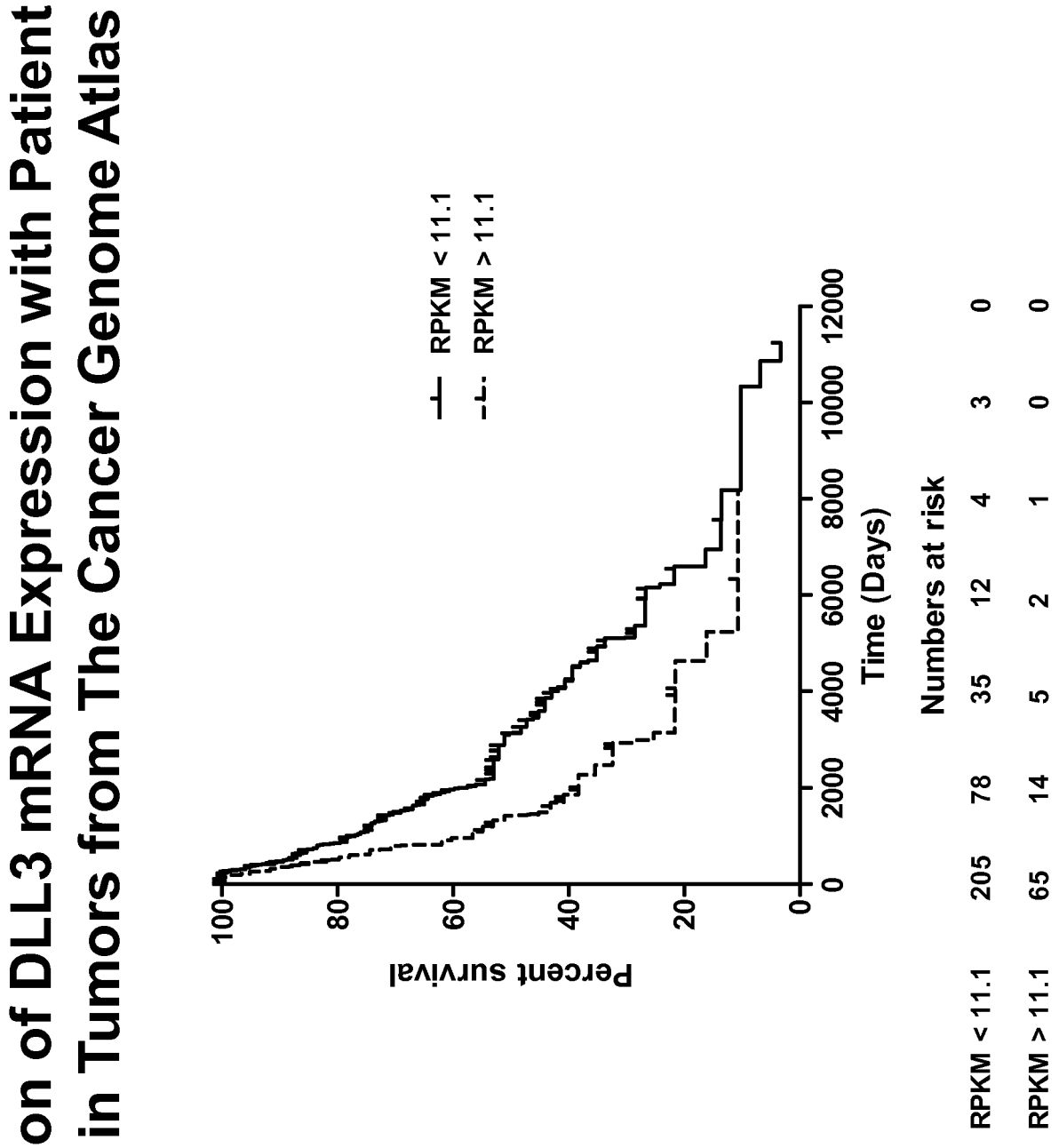
Correlation of DLL3 mRNA Expression with Patient Survival in Tumors from The Cancer Genome Atlas
RPKM < 11.1
RPKM > 11.1
Percent survival
100
80
60
40
20
0
0
2000
4000
6000
8000
10000
12000
Time (Days)
Numbers at risk
RPKM < 11.1 205 78 35 12 4 3 0
RPKM > 11.1 65 14 5 2 1 0 0

FIG. 4B

# Correlation of DLL3 mRNA Expression with Patient Survival in Tumors from The Cancer Genome Atlas

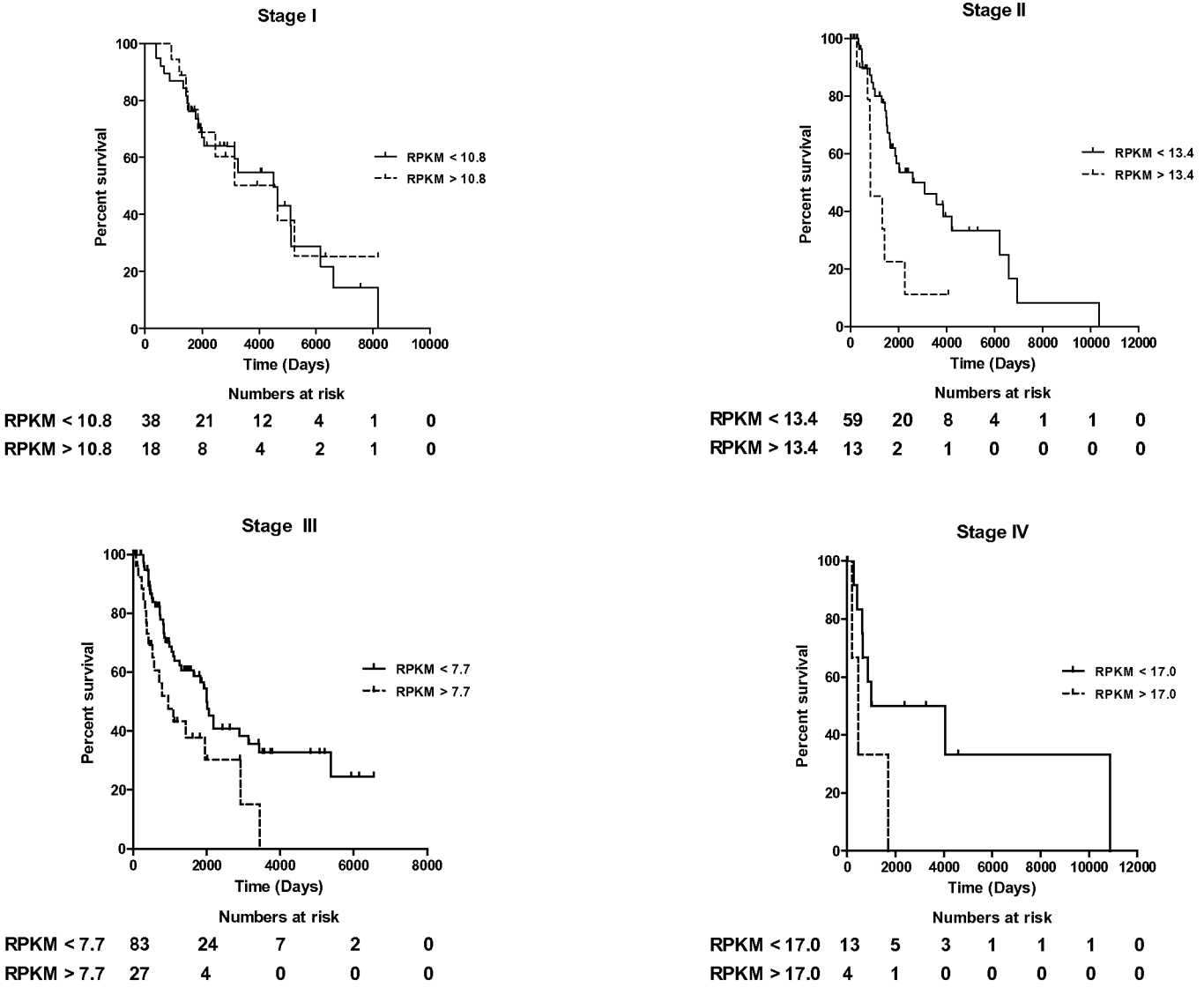


FIG. 4C

# Binding Characteristics of Anti-DLL3 Antibodies

| Clone | Bin | Domain | Affinity (nM) |
|---|---|---|---|
| SC16.4 | F | EGF4 | 0.5[F] |
| SC16.8 | A | EGF5 | 0.5[F] |
| SC16.10 | E | EGF2 | 4.0[F] |
| SC16.13 | B | EGF2 | 2.0[B] |
| SC16.15 | G | N-terminal | 0.5[B] |
| SC16.25 | C | N-terminal | 0.2[B] |
| SC16.34 | D | DSL | 0.2[B] |
| SC16.39 | I | EGF6 | 1.0[F] |
| SC16.46 | A | EGF1 | 0.5[F] |
| SC16.51 | H | N-terminal | 2.0[F] |
| SC16.56 | D | DSL | 1.0[B] |
| SC16.65 | B | EGF2 | 0.9[B] |
| SC16.67 | D | EGF3 | 0.5[F] |

[B] Biacore; [F] ForteBio

FIG. 5

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.3 | QIVLTQSPAIMSVSLGERVTMTC | TASSSVSSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPARFSGSGSGTSYFFTISSMEAEDAATYYC | HQYHRSPFT | FGAGTKLKIR | 21 |
| SC16.4 | DIQMTQTTSSLSASLGDRVTISC | RASQDISNYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSGTDYSLTISNLELEDIATYFC | QQGDMLPWT | FGGGTKLEIK | 25 |
| SC16.5 | QIVLTQSPAIMSASPGEKVTMTC | SASSSVSYMH | WYQQKSGTSPKRWIY | DTSKLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | QQWTRNPLT | FGAGTKLELK | 29 |
| SC16.7 | NIMMTQSPSSLAVSAGEKVTMSC | KSSQSVLYSSNQKNYLA | WYQQKPGQSPKLLIY | WASTRES | GVPDRFTGSGSGTDFTLTISTVQVEDLAVYYC | HQYLSSWT | FGGGTKLEIK | 33 |
| SC16.8 | EIQMTQSPSSMSASLGDRITITC | QATQDIVKNLN | WYQQKPGKPPSFLIY | YAIELAE | GVPSRFSGSGSGSDYSLTISNLESEDFADYYC | LQFYEFPFT | FGAGTKLELK | 37 |
| SC16.10 | QIVLTQSPAIMSASLGERVTMTC | TASSSVSSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPTRFSGSGSGTSYSLTISSMEAEDAATYYC | HQYHRSPFT | FGSGTKLEIK | 41 |
| SC16.11 | DVEMTQTPLTLSVTIGQPASISC | KSSQSLSDSDGKTYLN | WMFQRPGRSPKRLIY | LVSKLDS | GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC | WQGKHFPWT | FGGGTKLEIK | 45 |
| SC16.13 | QIVLTQSPALVSASPGEKVTMTC | SASSSVSYMY | WYQQKPRSSPKPWIY | LTSNLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | QQWRSNPFT | FGSGTKLEIK | 49 |
| SC16.15 | DIQMTQSPASLAASVGETVAITC | RASENIYYNLA | WYQQKQGKSPQLLIY | TANSLED | GVPSRFSGSGSGTQYSLKINSMQPEDSATYFC | KQAYDVPPT | FGGGTKLEIK | 53 |
| SC16.18 | DIQMTQTTSSLSASLGDRVTISC | RASQNIINYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSGTDYSLTISNLEPEDIATYYC | QQYSERPYT | FGGGTKLEIK | 57 |
| SC16.19 | DIQMTQSPSSLSASLGGKVTFTC | KASQDIHKYVA | WYQHKPGKGPRLLIH | YTSTLQP | GISSRFSGSGSGRDYSFSISNLEPEDIATYYC | LQYNNLYT | FGGGTKLEIK | 61 |
| SC16.20 | EIQMTQSPSSMSASLGDRITITC | QATQDIVKNLN | WYQQKPGKPPSFLIY | YATELAE | GVPSRFSGSGSGSDYSLTIRNLESEDFADHYC | LQFYEFPFT | FGAGTKLELK | 65 |
| SC16.21 | DIVMTQSPSSLAMSVGQKVTMSC | KSSQSLLNSSNQKNYLA | WYQQEPGQSPKLLVS | FASTRES | GVPDRFTGSGSGTDFTLTISGVQAEDLAVYYC | QQHYSIPLT | FGAGTKLELK | 69 |
| SC16.22 | DIQMTQTTSSLSASLGDRVTISC | RASQDIKNYLN | WYQQKPDGTVKPLIY | YTSRVHS | GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC | QQGYTLPFT | FGSGTKLE**IK** | 73 |
| SC16.23 | QIVLTQSPAIMSASPGEKVTLTC | SASSSVSSRYLY | WYQQKPGSSPKLWIY | STSNLAS | GVPARFSGSGSGTSYSLIISSMEAEDAASYFC | HQWSNYPLT | FGAGTKLELK | 77 |
| SC16.25 | QIVLTQSPAIMSASPGEKVTMTC | SASSSVSYMH | WYQQKSGTSPKRWIY | DSSKLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | QQWSSNPLT | FGAGTKLELK | 81 |
| SC16.26 | DVEMTQTPLTLSVTIGQPASISC | KSSQSLSDSDGKTYLN | WMFQRPGRSPKRLIY | LVSKLDS | GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC | WQGKHFPWT | FGGGTKLEIK | 85 |
| SC16.29 | QIVLTQSPAIMSASPGEKVTITC | SASSSVSYMH | WFQQKPGTSPKLWIY | TTSNLAS | GVPARFSGSGSGTSYSLTVSRMEAEDAATYYC | QQRSLYPYT | FGGGTKVEIK | 89 |
| SC16.30 | QIVLTQSPTIMSASLGERVTMTC | TASSSVTSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | HQFHRSPFT | FGSGTKLEIK | 93 |
| SC16.31 | DIVLTQSPLSLPVNIGDQASISC | KSTKSLLNSDGFTYLD | WYLQRPGQSPQFLIY | LVSNRFS | GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC | FQSNYLPLT | FGAGTKLELR | 97 |

FIG. 6A

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.34 | SIVMTQTPKFLLVSAGDRVTITC | KASQSVSNDVA | WYQQKPGQSPKLLIY | YASNRYS | GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC | QQDYSSPWT | FGGGTKLEIK | 101 |
| SC16.35 | DIQMTQTTSSLSASLGDRVTISC | RASQDISNYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC | QQGNTLPYT | FGGGTKLEIK | 105 |
| SC16.36 | ETTVTQSPASLSVTTGEKVTIRC | ITTPDIDDDMN | WYQQKPGEPPNLLIS | EGNSLRP | GVPSRFSSSGYGTNFVFTIENTLSEDVADYYC | LQSDNMPFT | FGSGTKLEIK | 109 |
| SC16.38 | QIVLTQSPAIMSASPGEKVTMTC | SASSSINYMH | WYQQKPGTSPKRWIY | DTSKLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | HQRSTWT | FGGGTKLEIK | 113 |
| SC16.41 | DIQMTQTTSSLSASLGDRVTISC | RASQDVINYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSRTDYSLTISNLEPEDIATYYC | QQYSERPYT | FGGGTKLEIK | 117 |
| SC16.42 | DVLMTQSPLSLSVSLGDQASISC | RSSQNIVHSDRYTYLE | WYLQKPGQSPKLLIY | GVSNRFS | GVPDRFSGSGSGTDFTLKISRVEAEDMGVYYC | FQGTHVPYT | FGGGTKLEIK | 121 |
| SC16.45 | EIQMTQSPSSMSASLGDRITITC | QATQDIVKNLN | WYQQKPGKPPSFLIY | YATELAE | GVPARFSGSGSGSDYSLTISNLESEDFADYHC | LQFYEFPFT | FGAGTKLELK | 125 |
| SC16.47 | DVVLTQSPLSLPVNIGDQASISC | KSTKSLLNSDGFTYLD | WYLQRPGQSPQFLIY | LVSNRFS | GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC | FQSNYLPLT | FGAGTKLELR | 129 |
| SC16.49 | DIKMTQSPSSMYASLGERVTITC | KASQDINSYLS | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTITSLEYEDMGIYYC | LQYDEFPLT | FGAGTKLELK | 133 |
| SC16.50 | DIQMTQTTSSLSASLGDRVTISC | RASQDISNYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSGTDYSLTISNLEQEDIATYFC | QQGNTLRT | FGGGTKLEIK | 137 |
| SC16.52 | DIQMIQSPSSMFASLGDRVSLSC | RASQGIRGTLD | WYQQKPNGTIKLLIY | STSNLNS | GVPSRFSGSGSGSDYSLTISSLESEDFADYYC | LQRNAYPLT | FGAGTKLELK | 141 |
| SC16.55 | DIKMTQSPSSMYASLGERVTITC | KASQDINSYLN | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC | LQYDEFPYT | FGGGTKLEIK | 145 |
| SC16.56 | SIVMTQTPKFLLVSAGDRVTITC | KASQSVSNDVV | WYQQKPGQSPKLLIY | YASNRYT | GVPDRFAGSGYGTDFSFTISTVQAEDLAVYFC | QQDYTSPWT | FGGGTKLEIR | 149 |
| SC16.57 | DIVMTQSHKFMSISVGDRVSITC | KASQDVSIFVA | WYQQKPGQSPKLLIY | SASYRYT | GVPDRFTGSGSGTDFIFTISSVQAEDLAVYYC | QQHYGTPFT | FGSGTKLKIR | 153 |
| SC16.58 | DIQMTQSPASLSSSVGETVTITC | RASENIYSYLA | WYQQKQGKSPQLLVY | NAKTLAE | GVPSRFSGSGSGTQFSLKINSLQPEDFGTYYC | QHHYDSPLT | FGAGTKLELR | 157 |
| SC16.61 | DIVMTQSTSSLAMSVGQKVTMSC | KSSQSLLNSSNQKNYLA | WYQQEPGQSPKLLVS | FASTRES | GVPDRFTGSGSGTDFTLTISGVQAEDLAVYYC | QQHYSIPLT | FGAGTKLELK | 161 |
| SC16.62 | DIKMTQSPSSMYASLGERVTITC | KASQDINSFLS | WFQRKPGKSPKTLIY | RANRLVD | GVPSRFTGSGSGQEFSLTISSLEYEDLGIYYC | LQYDEFPYT | FGGGTKLEIK | 165 |
| SC16.63 | QIVLTQSPAIMSASPGEKVTMTC | SASSSVSYMY | WYQQKSGTSPKRWIY | DTSKLAS | GVPARFSGSGSGTSYSLTISSMEAEDAATYYC | QQWSSNPYT | FGGGTKLEIK | 169 |
| SC16.65 | QIVLTQSPALMSASPGEKVTMTC | SVTSSVSYMY | WYQQKPRSSPKPWIY | LTSNLAS | GVPARFSGSGSGTSYSLTISSVEAEDAATYYC | QQWRNNPFT | FGSGTKVEIK | 173 |
| SC16.67 | QAVVTQESALTTSPGETVTLTC | RSSTGAVTTSNYAN | WIQEKPDHLFTGLIG | GTNNRAP | GVPARFSGSLIGDKAALTITGAQTEDEAIYFC | GLWYSNHLV | FGGGTKLTVL | 177 |
| SC16.68 | ETTVTQSPAFLSVATGEKVTIRC | ITSTDIDDDMN | WYQQKPGEPPNVLIS | EGNTLRP | GVPSRFSSSGYGTDFVFTIENTLSEDVADYYC | LQSDNMPLT | FGAGTKLELK | 181 |
| SC16.72 | ENVLTQSPAIMSASLGEKVTMSC | RASSSVNYMS | WYQQKSDASPKLWIY | YTSNLAP | GVPARFSGSGSGNSYSLTISSMEGEDAATYYC | QQFTSSPYT | FGGGTKLEIK | 185 |

FIG. 6A cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.73 | DIQMTQSPSSLSASLGERVSLTC | RASQDIGYSLN | WLQQEPDGTIKRLIY | ATSSLDS | GVPKRFSGSRSGSDYSLTISSLESEDFVDYYC | LQYASSPWT | FGGGTKLEIK | 189 |
| SC16.78 | DIKMTQSPSSMYASLGERVTITC | KASQDINSYLS | WFQQKPGRSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLDYEDMGIYYC | LQYDEFPFT | FGSGTKL**EIK** | 193 |
| SC16.79 | DIVMSQSPSSLAVSAGEKVTMSC | KSSQSLLNSRTRKNYLA | WYQQKPGQSPKLLIY | WASTRES | GVPDRFTGSGSGTDFTLTISSVQAEDLAVYYC | KQSYNLYT | FGGGTKLKIK | 197 |
| SC16.80 | ETTVTQSPASLSMAIGEKVTIRC | ITSTDIDDDMI | WYQQKPGEPPKLLIS | EGNTLRP | GVPSRFSSSGYGTDFVFTIENMLSEDVADYYC | LKRDDLPYT | FGGGTQVEIK | 201 |
| SC16.81 | QIVLTQSPAIMSASLGERVTLTC | TASSSVSSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPTRFSGSGSGTSYSLRISSMEAEDAATYYC | HQYNRSPLT | FGAGTKLELK | 205 |
| SC16.84 | DIQMTQSPSSLSASLGGKVTITC | KASQDIKKYIA | WYQHKPGKGPRLLIH | YTSTLEP | GIPSRFSGSGSGRDYSFSISNLEPEDIATYYC | LQYDILWT | FGGGTKLEIK | 209 |
| SC16.88 | ENVLTQSPAIMAASLGQKVTMTC | SASSSVSSSYLH | WYQQKSGASPKPLIH | RTSNLAS | GVPARFSGSGSGTSYSLTISSVEAEDDATYYC | RQWSGYPWT | FGGGTKLEIK | 213 |
| SC16.101 | QIVLTQSPAIMSASLGERVTMTC | TASSSVSSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPARFSGSESGTSYSLTISNMEAEDAATYYC | HQYHRSPFT | FGSGTKLEIK | 217 |
| SC16.103 | DIVLTQSPASLAVSLGQRATISC | RASKSVSTSGYSYMH | WYQQKPGQPPKLLIY | LASNLES | GVPARFSGSGSGTDFTLNIHPVEEEDAATYYC | QHSRELPLT | FGAGTKLELK | 221 |
| SC16.104 | QIVLSQSPAILSASPGEKVTMTC | RASSSVSYIH | WYRQKPGSSPKPWIY | ATSNLAS | GVPARFSGSGSGTSYSLTISRVEAEDAATYYC | QQWSSNPPT | FGAGTKLELK | 225 |
| SC16.105 | DIVMTQSHKFMSTSVGDRVSITC | KASQDVGTAVA | WYQQKPGQSPKLLIY | WASIRHT | GVPDRFTGSGSGTDFTLTISNVQSEDLADYFC | QQYSSYPLT | FGAGTKLELK | 229 |
| SC16.106 | DIKMTQSPSSMYASLGERVTITC | KASQDINSYLS | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC | LQYDEFPFT | FGSGTKLEIK | 233 |
| SC16.107 | DIVMTQSHKFMSTSVGDRVSITC | KASQDVNTAVG | WYQQKPGQSPKLLIY | SASYRYT | GVPDRFTGSGSGTDFTFTISSVQAEDLAVYYC | QQHYSSPYT | FGGGTKVEIK | 237 |
| SC16.108 | DIQMTQSPASLSASVGETVTITC | RASENIYSYLA | WYQQKQGKSPQLLVY | NAKTLAE | GVPSRFSGSRSGSQFSLKINSLQPEDFGSYYC | QHHYGTPYT | FGGGTKLEIK | 241 |
| SC16.109 | QIVLTQSPAIMSASPGEKVTMTC | SASSSVSYMY | WYQQKPGSSPRLLIY | DTSNLAS | GVPVRFSGSGSGTSFSLTISRMEAEDTATYYC | QEWSGNPLT | FGDGTKLELK | 245 |
| SC16.110 | NIVMTQTPKFLLVSAGDRVTITC | KASQSVSNDVA | WYQQKPGQSPKLLIY | YASNRYT | GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC | QQDYSSPPT | FGGGTKLEIK | 249 |
| SC16.111 | DIQMTQSPASLAASVGETVTITC | RASENIYYSLA | WYQQKQGKSPQLLIY | NANSLED | GVPSRFSGSGSGTQYSMKINSMQPEDTATYFC | KQTYDVPLT | FGAGTKLELK | 253 |
| SC16.113 | DVVMTQTPLTLSVTIGQPASISC | KSSQSLLDSDGTTYLN | WLLQRPGQSPKRLIY | LVSKLDS | GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC | WQGTHFPLT | FGAGTKLELK | 257 |
| SC16.114 | QIVLSQSPAILSASPGEKVTMTC | RASSSVSYMH | WYQQKPGSSPKPWIY | ATSNLAS | GVPARFSGSGSGTSYSLTISRVEAEDAATYYC | QQWSSNPYT | FGGGTKLEIK | 261 |
| SC16.115 | DVVMTQTPLTLSVTIGQPASISC | KSSQSLLDSDGTTYLN | WLLQRPGQSPKRLIY | LVSKLDS | GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC | WQGTHFPLT | FGAGTKLELK | 265 |

FIG. 6A cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.116 | DIVMTQSPSSLTVTAGEKVTMSC | TSSQSLLTSGNQKNYLT | WYQQKPGQPPKLLIY | WASTRES | GVPDRFTGSGSGTDFTLTISSLQAEDLAVYYC | QNDYSLT | FGAGTKLELK | 269 |
| SC16.117 | DIQMNQSPSSLSASLGDTITITC | HVSQNINVWLS | WYQQKPGNIPKLLIQ | KASNLHT | GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC | QQGQSYPFT | FGSGTKLEIK | 273 |
| SC16.118 | DIVLTQSPASLAVSLGQRATISC | KASQSVDYDGDSYLT | WYQQKPGQPPKLLIY | AASNLES | GIPARFSGSGSGTDFTLNIHPVEEEDAATYYC | QQSNEDPYT | FGGGTKLEIK | 277 |
| SC16.120 | DIVMSQSPSSLAVSVGEKVTMSC | KSSQSLLYSSTQKNYLA | WYQQKPGQSPKLLIY | WASTRES | GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC | QQYYSYPYT | FGGGTKLEIK | 281 |
| SC16.121 | QIVLTQSPAIMSASPGEKVTITC | SASSSVSYMH | WFQQKPGTSPKLWIY | STSNLAS | GVPARFSGSGSGTSYSLTISRMEAEDAATYYC | QQRSSYPPT | FGGGTKLEI**K** | 285 |
| SC16.122 | DIVMTQSQKFMSTSVGDRVSVTC | KASQNVGTNVA | WYQQKPGQSPKVLIY | SASYRYS | GVPDRFTGSGSGTDFTLTISNVQSEDLAEFFC | QQYNSYPLT | FGGGTKLEIK | 289 |
| SC16.123 | QIVLTQSPAIMSASLGERVTMTC | TASSSVSSSYLH | WYQQKPGSSPKLWIY | STSNLAS | GVPARFSGSGSGTSYSLTISSMETEDAATYYC | HQYHRSPFT | FGSGTKLEIK | 293 |
| SC16.124 | DIQMTQSPASQSASLGESVTITC | LASQTIGTWLA | WYQQKPGKSPQLLIS | AATSLAD | GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC | QQLYSTPWT | FGGGTKLEIK | 297 |
| SC16.125 | DIQMNQSPSSLSASLGDTITITC | HASQNINVWLS | WYQQKPGNIPKLLIY | KASILHT | GVPSRFSGSGSGTGFTLTISSLQPEDIATYSC | QQGQSYPYT | FGGGTKLEIK | 301 |
| SC16.126 | DIQMNQSPSSLSASLGDTITITC | HASQNINVWLS | WYQQKPGNIPKLLIY | KASNLHT | GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC | QQGQSYPFT | FGSGTKLEIK | 305 |
| SC16.129 | DIQMTQSPASQSASLGESVTITC | LASQTIGTWLA | WYQQKPGKSPQLLIY | AATSLAD | GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC | QQLYSTPYT | FGGGTKLEIK | 309 |
| SC16.130 | DIQLTQSPASLSASVGETVTITC | RASGSIHNYLA | WYQQKQGKSPQLLVY | NAKTLVD | GVPSRFSGSGSGTQYSLKINSLQPEDFGYYYC | QHFWTTPWT | FGGGTKLEIK | 313 |
| SC16.131 | DIQMNQSPSSLSASLGDTITITC | HVSQNINVWLS | WYQQKPGNIPKLLIQ | KASNLHT | GVPSRFSGSGSGTGFTLTISSLQPEDIATYYC | QQGQSYPFT | FGSGTKLEIK | 317 |
| SC16.132 | DIQMTQSPASQSASLGESVTITC | LASQTIGTWLA | WYQQKPGKSPQLLIY | AATSLAD | GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC | QQLYSTPWT | FGGGTKLEIK | 321 |
| SC16.133 | SIVMTQTPKFLLVSAGDRVTITC | KASQSVSNDVA | WYQQKPGQSPKLLIY | CASNRYT | GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC | QQDYSSPLT | FGAGTKLELK | 325 |
| SC16.134 | DIVLTQSPASLAVSLGQRATISC | KASQSVDHAGDSYMN | WYQQKPGQPPKLLIY | AASNLES | GIPARFSGSGSGTDFTLNIHPVEEEDAATYYC | QQSNEDPYT | FGGGTKLEIK | 329 |
| SC16.135 | DIKMTQSPSSMYASLGERVTITC | KASQDINRYLS | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC | LQYDEFPFT | FGSGTKLEIK | 333 |
| SC16.136 | DIQMTQSPASLSASVGETVTITC | RASGNIHNYLA | WYQQKQGKSPHLLVY | NAKTLAD | GVPSRFSGSGSGTQYSLKINSLQPEDFGSYYC | QHFWSTPWT | FGGGTKLEIK | 337 |
| SC16.137 | QIVLTQSPAIMSASLGEEITLTC | SASSSVSYMH | WYQQKSGTSPKLLIY | STSNLAS | GVPSRFSGSGSGTFYSLTISSVEAEDAADYYC | HQWSSYHT | FGGGTKLEIK | 341 |

FIG. 6A cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.138 | DIQMTQSPASQSASLGESVTITC | LASQTIGTWLA | WYQQKPGKSPQLLIY | SATSLAD | GVPSRFSGSGSGTKFSFKISSLQAEDFVSYYC | QQLYSTPWT | FGGGTKLEIK | 345 |
| SC16.139 | DIVMTQSHKFMSTSVGDRVSITC | KASQDVNTAVG | WYQQKPGQSPKLLIY | SASYRYT | GVPDRFTGSGSGTDFTFTISSVQAEDLAVYYC | QQHYSSPYT | FGGGTKLEIK | 349 |
| SC16.140 | DIVLTQSLASLAVSLGQRATISC | RASKSVSTSGYSYMH | WYQQKPGQPPKLLIY | LASNLES | GVPARFSGSGSGTDFTLNIHPVEDEDAATYYC | QHSRELPFT | FGGGTKLEIK | 353 |
| SC16.141 | DIKMTQSPSSMYASLGERVTITC | KASQDINSYLS | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC | LQYDEFPFT | FGSGTKLEIK | 357 |
| SC16.142 | DIKMTQSPSSMYASLGERVTITC | KASQDINNYLS | WFQQKPGKSPKTLIY | RANRLVD | GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC | LQYDEFPYT | FGGGTKLEIK | 361 |
| SC16.143 | DVLMTQTPLSLPVSLGDQASISC | RSSQSIVHSNGNTYLE | WYLQKPGQSPKLLIY | KVSNRFS | GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC | FQGSHVPLT | FGAGTKLELK | 365 |
| SC16.144 | SIVMTQTPKFLLVSAGDRVTITC | KASQSVSNDVG | WYQQKPGQSPKLLIY | YASNRYN | GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC | QQDYSSPWT | FGGGTKLEIK | 369 |
| SC16.147 | DIQMTQTASSLSASLGDRVTISC | RASQDINNYLN | WYQQKPDGTVKLLIY | YTSRLHS | GVPSRFSGSGSGTDYSLTISILEQEDIATYFC | QQGDTLPWT | FGGGTKLEIK | 373 |
| SC16.148 | QIVLTQSPAIMSASPGEKVTMTC | SASSSVSYMY | WYQQKPGSSPRLLIY | DTSNLAS | GVPVRFSGSGSGTSYSLTISRMEAEDTATYYC | QEWSNNPLT | FGDGTKLELK | 377 |
| SC16.149 | DIQMNQSPSSLSASLGDTITITC | HASQNINVWLS | WYQQKPGNIPKLLIY | KASHLHT | GVPSRLSGSGSGTGFTLTISSLQPEDIATYYC | QQGQSYPFT | FGSGTTLEIK | 381 |
| SC16.150 | DIVMSQSPSSLTVSVGEKVTMSC | MSSQSLLYSSTQKNYLA | WYQQKPGQSPKLLIY | WASTRES | GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC | QQYYSYPYT | FGGGTKLEIK | 385 |

FIG. 6A cont.

# Amino Acid Sequences of Exemplary Humanized Anti-DLL3 Antibody Light Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| hSC16.13 | DIQMTQSPSSLSASVGDRVTITC | SASSSVSYMY | WYQQKPGKAPKLLIY | LTSNLAS | GVPSRFSGSGSGTDFTLTISSLQPEDFATYYC | QQWRSNPFT | FGQGTKLEIK | 389 |
| hSC16.15 | AIQLTQSPSSLSASVGDRVTITC | RASENIYYNLA | WYQQKPGKAPKLLIY | TANSLED | GVPSRFSGSGSGTDFTLTISSLQPEDFATYFC | KQAYDVPPT | FGGGTKLEIK | 393 |
| hSC16.25 | EIVLTQSPDFQSVTPKEKVTITC | SASSSVSYMH | WYQQKPDQSPKLLIK | DSSKLAS | GVPSRFSGSGSGTDFTLTINSLEAEDAATYYC | QQWSSNPLT | FGQGTKLEIK | 397 |
| hSC16.34 | DIQMTQSPSSLSASVGDRVTITC | KASQSVSNDVA | WYQQKPGKVPKLLIY | YASNRYS | GVPSRFSGSGSGTDFTLTISSLQPEDVATYFC | QQDYSSPWT | FGGGTKVEIK | 401 |
| hSC16.56 | EIVMTQSPATLSVSPGERATLSC | KASQSVSNDVV | WYQQKPGQAPRLLIY | YASNRYT | GIPARFSGSGSGTEFTLTISSLQSEDFAVYYC | QQDYTSPWT | FGQGTKLEIK | 405 |

FIG. 6A cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.3 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYNPALKS | RLTISKDTSSSQVFLKIASVDTADTATYYCAR | IADYGGDYYAMDY | WGQGTSVTVSS | 23 |
| SC16.4 | QIQLVQSGPELKKPGETVKISCKASGYTFT | DYSMH | WVKQAPGKGLKWMG | WINTETGEPGYADDFKG | RFAFSLETSASTAYLQINNLKNEDTATYFCAR | YDGYAMDY | WGQGTSVTVSS | 27 |
| SC16.5 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGEGLEWLA | DIWWDDNKYYNPSLKS | RLTISKDTSSNQVFLKITSVDTADTATYYCAR | RVNYVYDPYYAMDY | WGQGTSVTVSS | 31 |
| SC16.7 | EVQLQQSGPELVKPGASVKISCKASGYSFT | GYKMH | WVKQSHVKSLEWIG | RINPYNGATSYNQNFKD | KATLTVDKSSSTAYMDLHSLTSEDSAVYFCAR | GDYRYDWFAY | WGQGTLVTVSA | 35 |
| SC16.8 | QAQLQQSGAELVRPGTSVKVSCKASGYAFT | NYLIE | WVKQRPGQGLEWIG | VINPGTGGTNYNENFKG | KATLTADKSSSTAYMQLSSLTSDDSAVYFCAR | SPYDYHEGAMDY | WGQGTSVTVSS | 39 |
| SC16.10 | QVTLKESGPGILQSSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYNPVLKS | RLTISKDTSSSQVFLKIASVDTADTATYYCAR | LVDDLYYFDY | WGQGTTLTVSS | 43 |
| SC16.11 | QIQLVQSGPELKKPGETVKISCKASGYTFT | DYSMH | WVKQAPGKGLKWMG | WINTETVEPTYADDFMG | RFAFSLETSASTAFLQINNLENEDTATYFCAR | FGSYAMDY | WGQGTSVTVSS | 47 |
| SC16.13 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYNPALKS | RLTISKDTSSSQVFLKIASVDTADTATYYCAR | IVSFDNDVVSAMDY | WGQGTSVTVS**S** | 51 |
| SC16.15 | QVQLQQSGAELAKPGASVKMSCKASGYTFT | RYWIH | WIKQRPGQGLEWIG | YINPTTVYTEFNQNFKD | KATLTADKSSTTASMQLSSLTSEDSAVYYCAR | GGSNFFDY | WGQGTTLTVSS | 55 |
| SC16.18 | EVKLEESGGGLVQPGESMKLSCAASGFTFS | DAWMD | WVRQSPEKGLEWVA | EIRNKANNHATYYAESVKG | KFTISRDDSKSRVYLQMNNLRAADTGIYYCTA | YSNFAY | WGQGTLVTVST | 59 |
| SC16.19 | EVQLQQSGAELVRPGASVKLSCTASGFNIK | DSLLH | WVKQRPEKGLEWIG | WIDPEDGETKYAPNFQD | KATITTDSSSNTAYLQLISLTSVDTAIYYCAY | GNYVRHFDY | WGQGTTLTVSS | 63 |
| SC16.20 | QVQLQQSGTELVRPGTSVRVSCKASGYAFG | NHLIE | WVKQRPGQGLEWIG | VINPGTGGTHYNEKFKD | KARLTADKSSNTAYMHLNSLTSDDSAVYFCAR | SPYDYHEGAMDY | WGQGTSVTVSS | 67 |
| SC16.21 | QVQLQQSGPELVKPGASVKISCKASGYAFS | SSWMN | WVKQRPGKGLEWIG | RIYPGDGDTNYNGKFKG | KATLTADKSSSTAYMQLSSLTSEDSAVYFCAM | GIYNYDGSRYYSMDY | WGQGTSVTVSS | 71 |
| SC16.22 | QVQLQQPGAELVKPGASVKLSCKASGYTFT | TYWMH | WVKQRPGQGLEWIG | EIDPSDSYTYYNQKFKG | KATLTVDKSSSTAYMQLSSLTSEDSAVYYCAR | GDYGNPYAMDY | WGQGSSVTVSS | 75 |
| SC16.23 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSNTGIG | WIRQPSGTGLEWLA | HIWWNDDKYYNPSLKS | RLTISKETSNNQVFLKITNVDTADTASYFCVQ | IGRDYSNYAWYFDV | WGAGTTVTVSS | 79 |
| SC16.25 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGEGLEWLT | DIWWDDNKYYNPSLKS | RLTISKDTSSNQVFLNITSVDTADTATYYCAR | RVNYYYDPYYAMDY | WGQGTSVTVSS | 83 |
| SC16.26 | QIQLVQSGPELKKPGETVKISCKASGYSFT | DYSMH | WVKQAPGKGLKWMG | WINTETVEPTYADDFMG | RFAFSLETSASTAFLQINNLENEDTATYFCAR | FGSYAMDY | WGQGTS**VTVSS** | 87 |
| SC16.29 | QVQLQQSGAELARPGASVKLSCKASGYTFT | DQYIN | WVKQRTGQGLEWIG | EIYPGRGNTYYNEKFKG | KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR | EDGGYDDAWFAY | WGQGTLVTVSA | 91 |
| SC16.30 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYKPALKS | RLTVSKDTSSNQVFLKIATVDAADTGTYYCAR | IVDGHPPFAY | WGQGTLVTVSA | 95 |
| SC16.31 | EVQLQQSGPELVKPGASVKISCKASGYSFS | RFYMH | WVKQSPENSLEWIG | EINPSTGGTSYNQKFKG | KATLTVDKSSSTAYMQLKSLTSEESAVYYCTR | GYGSNWYFDV | WGAGTTVTVST | 99 |

FIG. 6B

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.34 | QIQLVQSGPELKRPGETVKISCKASGYTFT | NYGMN | WVKQAPGKGLKWMG | WINTYTGDPTYADDFKG | RFAFSLETSASTAYLQINNLKNEDTATYFCAR | IGGNSPSDY | WGQGTSLTVSS | 103 |
| SC16.35 | DVQLQESGPGLVKPSQSLSLTCTVTGYSIT | SDYAWN | WIRQFPGNKLEWMG | YISYSGSTSYNPSLKS | RISITRDTSKNQFFLQLNSVTTEDTATYYCAR | FYYGSSYAMDY | WGQGTSVTVSS | 107 |
| SC16.36 | QVQLQQSGAELAKPGASVKMSCKASGYTFT | TYWMH | WVKQRPGQGLEWIG | YINPSSGYTEYNQKFKD | KATLTADKSSSTAYMQLSSLTSEDSSVYYCAR | KGSNRGFAY | WGQGTLVTVS**S** | 111 |
| SC16.38 | EVQLQQSGAELVKPGASVKLSCTVSGFNIK | DTYIH | WVKQRPEQGLEWIG | RIDPANGNTKYDPKFQG | KATITADTSSNTAYLQLSSLTSEDTAVYYCAR | PTGYFEY | WGQGTTLTVSS | 115 |
| SC16.41 | EVKLEESGGGLVQFGGSMKLSCAASGFTFS | DAWMD | WVRQSPEKGLEWVA | EIRNKANNHATYYPESVKG | RFTISRDDSKSRVYLQMNNLRAEDTGIYYCTG | YSSFAY | WGQGTLVTVSA | 119 |
| SC16.42 | QIQLVQSGPELKKPGETVKISCKASGYTFT | TAGMQ | WVQKMPGKGFKWIG | WINTHSGEPKYADDFKG | RFAFSLETSASTAYLQISNLKDEDTATFFCAP | LWSDSSFAY | WGQGTLVTVSA | 123 |
| SC16.45 | QVQLQQSGADLVRPGTSVKVSCKASGYSFT | NYLIE | WVKQRPGQGLEWIG | VINPGSGGTHYNEKFKD | KAVLTADKSSTTAHMQLSSLTSDDSAVYFCAR | SPYDYNDGAMDY | WGQGTSVTVSS | 127 |
| SC16.47 | EVQLQQSGPELVKPGASVKISCKASGYSFS | RFYMH | WVKQSPENSLEWIG | EINPSTGGTSYNQKFKG | KATLTVDKSSSTAYMQLKSLTSEESAVYYCTR | GYGSNCYFDV | WGAGTTVTVST | 131 |
| SC16.49 | QVQLQQSGPELVKPGTLVKISCKASGYTFT | SYDIN | WVKQRPGQGLEWIG | WIYPGDGNTKYSEKFKG | KATLTADKSSSTAYMQLTSLTSENSAVYFCAR | DYDYPFAY | WGQGTLVTVSA | 135 |
| SC16.50 | EVQLVECGGCLVKPGGYLKLSCAASGFTFS | SYAMS | WVRQSPEKRLEWVA | EISIGGSYTYYPDTVTG | RFTISRDNAKNTLYLEMSSLRSEDTAMYYCAR | EGYDYDVRAMDY | WGQGTSVTVSS | 139 |
| SC16.52 | QVQLKESGPGLVAPSQSLSITCAVSGFSLT | SFAIH | WFRKPPGKGLEWLG | VIWTGGTTNYNSALMS | RLSISKDNSKSQVFLKMNSLQTDDTAMYYCAR | DDYDNNYAMDY | WGQGTSVTVSS | 143 |
| SC16.55 | EVQLVESGGGLVQPKGSLKLSCAVSAFTFT | TYAMN | WVRQAPGKGLEWVA | RIRNKSNNYATYYADSVKD | RFTISRDDSQSMLYLQMNNLKIEDTAMYYCVF | YYDYVY | WGQGTLVTVSA | 147 |
| SC16.56 | QIQLVQSGPELKKPGETVKISCKASGYTFT | NYGMN | WVKQAPGKGLKWMA | WINTYTGEPTYADDFKG | RFAFSLETSASTASLQIINLKNEDTATYFCAR | IGDSSPSDY | WGQGTTLTVSS | 151 |
| SC16.57 | EVKLVESGGDLVKPGGSLKLSCAASGFAFS | SYDMS | WVRQTPEKRLEWVA | TISSGGSYTYYPDSVKG | RFTISRDNVRDTLYLQMSSLRSEDTALYYCAR | QAIGTYFDY | WGQGTTLTVSS | 155 |
| SC16.58 | DVQLVESGGGLVQPGGSRKLSCAASGFTFS | SFGMH | WVRQAPEKGLEWVA | YISSGSSNIYYADTVKG | RFTISRDNPKNTLFLQMTSLRSEDTAMYYCAR | GYYGNYDAMDY | WGQGTSVTVSS | 159 |
| SC16.61 | EVLLQRSGPDLVKPGASVTIPCKASGYTFT | DYNMD | WVKQSHGKSLEWIG | NINTYNGGTIYNQKFKG | KATLTVDKPSSTAYMELRSLTSEDTAVYYCAR | RLRYGGHYFDY | WGQGTALTVSS | 163 |
| SC16.62 | EVMLVESGGDLVKPGGSLKLSCAASGFTFS | SYAMS | WVRQTPEKRLEWVA | YISGGGDHIYYPDSVRG | RFTISRDNAKDTLYLQMSSLRSEDTALYDCAR | VRDWYFDV | WGAGTTVTVSS | 167 |
| SC16.63 | QVQLQQSGTELLRPGASVKISCKATGYTFS | SYWME | WVKQRPGHGLEWIG | EILPGSGTTQYNEKFKG | KATFTADTSSNTAYMHLSSLTSEDSAVYYCAR | GTNSL | WGQGTLVTVSA | 171 |
| SC16.65 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | LIWWDDVKRYNPALKS | RLTISKDASSSQVFLKIASVDTADTATYYCAR | IASYDYDVVYAMDY | WGQGTSVSVSS | 175 |
| SC16.67 | EVQLVETGGGLVQPKGSLKLSCAVSAFTFT | TYAMN | WVRQAPGKGLEWVA | RIRNKSNNYATYYADSVKD | RFTISRDDSQSMLYLQMNNLKIEDTAMYYCVF | YYDYVY | WGQGTLVTVSA | 179 |

FIG. 6B cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.68 | QVQLQQPGAELVKPGASVKMSCKASGYTFT | NYNMH | WVKQTPGQGLEWIG | AIFPGNGGTSYNQKFKG | KATLTADKSSSTAYMQLTSLTSGDSAVYYCAR | WGYGSGLYAMDY | WGQGTSVTVSS | 183 |
| SC16.72 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | SYVMH | WVKQKPGQGLEWIG | YINPYNDGTKYNEKFKG | KATLTSDKSSSTAYMELSSLTSEDSAVYYCAR | LRSRAMDY | WGQGTSVTVSS | 187 |
| SC16.73 | QVQLQQSGAELMKPGASVKISCKANGYTFS | SYWIE | WLRQRPGHGLEWIG | EILPGSDNSNYNEKFKG | KATFTADTSSNTAYMQLSSLTSEESAVYYCTR | GLRRDGSYYYVMEH | WGQGTSVTVSS | 191 |
| SC16.78 | EVKLVESGGGLVKPGGSLKLSCAASGFTFG | RYVMS | WVRQTPEKKLEWVA | SITSGGTTYYPDSVKG | RFTISRDNARNILYLQMSSLRSEDTAMYYCAR | VYYHYDDIFAY | WGQGTLVTVSA | 195 |
| SC16.79 | EVQLQQSGPELVKPGASVKISCKTSGYTFT | EYTMH | WVKQSHGKSLEWIG | GINPNNGGTSYNQKFKG | KATLTVDKSSSTAYMELRSLTSEDSAVYYCAR | GPAWFAY | WGQGTLVTVSA | 199 |
| SC16.80 | EVQLQQSGPELVKPGGSKKISCKASGYSFT | GYSMN | WVKQSHGKNLEWIG | LINPYSGGTIYNQKFKG | KATLTVDKSSSTAYMELLSLTSEDSAVYYCAR | RSDYPLVY | WGQGTLVTVSA | 203 |
| SC16.81 | QVQLKESGPVLVAPSQSLSITCTVSGFSLT | SYGVH | WVRQPPGKGLEWLG | VIWAGGSTNYNSALMS | RLSISKDNSKSQVFLKMNSLQTDDTAMYYCAK | QGNFYAMDY | WGQGTSVTVSS | 207 |
| SC16.84 | EVQLQQSGPELVKPGASMKISCKASGYSFT | GYTMN | WVKQSHGKNLEWIG | LINPYNGGTTYNQKFKG | KATLTVDKSSSTAYMELLSLTSEDSAVYYCAL | GYYGNYRRYFDV | WGAGTTVTVSS | 211 |
| SC16.88 | QVQLQQSGAELARPGASVKLSCKASGYTCT | SYWMQ | WVKQRPGQGLEWIG | AIYPGDGDTRYTQKFKG | KATLTADKSSSTAYMQLSSLASEDSAVYYCAR | GRRTEAWFAY | WGQGTLVTVSA | 215 |
| SC16.101 | QVTLKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYNPALKS | RLTISKDASSSQVFLKIASVDTAETATYYCAH | ILDRAYYFDY | WGQGTTLTVTS | 219 |
| SC16.103 | QVTLKESGPGILKPSQTLSLTCSFSGFSLS | TSGMGIG | WIRQPSGKGLEWLA | HIWWDDDKYYNPSLKS | QLTISKDSSRNQVFLKITSVDTADTATYYCAR | RGTAYYFDY | WGQGTTLTVSS | 223 |
| SC16.104 | QVQLKESGPDLVQPSQTLSLTCTVSGFSLT | FYGVH | WVRQPPGKGLEWVG | TMGWDDKKYYNSALKS | RLSISRDTSKNQVFLKLSSLQTEDTAMYYCTR | GGTGFDY | WGQGTTLTVSS | 227 |
| SC16.105 | QVQLQQPGAELVKPGASVKLSCKASGYTFT | SYWMH | WVKQRPGQGLEWIG | VINPSNGRTNYNEKFKS | KATLTVDKSSSTAYMQLSSLTSEDSAVYYCAR | RRELGTLYAMDY | WGQGTSVTVSS | 231 |
| SC16.106 | QVQLKQSGPGLVAPSQSLFITCTVSGFSLT | SYEIN | WVRQPPGKGLEWLG | VIWTGGSTNYNSALIS | RLSISKDNSKSLVFLKMNSLQTDDTAIYYCVR | GVYAMDY | WGQGTSVTVSS | 235 |
| SC16.107 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | NYVMH | WVKQKPGQGLEWIG | YINPYNDGTKYNEKFKG | KATLTSDKSSTTAYMALSSLTSEDSAVYYCAV | AYYSNWGFAY | WGQGTLVTVSA | 239 |
| SC16.108 | QVQLEESGAELARPGASVKLSCKASGYSYW | MQ | WIKQRPGQGLEWIG | AIYPGNGDTRYTQKFKG | KATLTADKSSSTAYMQLSSLASEDSAVYYCAR | SPAYYRYGEGYFDY | WGQGTTLTVSS | 243 |
| SC16.109 | QIQLVQSGPELKKPGETVKISCKASGYTFT | NYGMN | WVKQAPGKGLKWMG | WINTYTGEPAYADDFKG | RFAFSLETSASAAYLQINNLKNEDTATFFCAN | MRPTRGFAY | WGQGTLGTVSA | 247 |
| SC16.110 | EVQLQQSGPGLVRTGASVKISCKASGYSFT | GYYMH | WVKQSHGKSLEWIG | YISCYNGATTYNQNFKG | KATFIVDTSSSTAYMQFNSLTSEDSAVYYCAR | SDGGHAMDY | WGQGTSVTVSS | 251 |
| SC16.111 | EVQLQQSGPELEKPGASVKISCKASGYSFT | GYNMN | WVKQSNGKSLEWIG | NIDPYYGGSSYKQKFEG | KATLTVDKSSSTAYMQLKSLTSEDSAVYYCAR | GGSNFFDY | WGQGTTLTVSS | 255 |

FIG. 6B cont.

# Amino Acid Sequences of Exemplary Murine Anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.113 | DVKLVESGGGLVKPGGSLKLSCAASGFTFS | SYTMS | WVRQTPEKRLEWVA | TISSGGSYPYYPDSVKG | RFTISRDNAKNTLYLQMSSLKSEDTAMYYCTR | DVYDGYSY | WGQGTTLTVSS | 259 |
| SC16.114 | EVQLQQSGAELVKPGASVKLSCTASGFNIK | DTYIH | WVKQRPEQGLEWIG | RIDPANGNTKYDPKFQG | KATITPDTSSNTAYLQLSSLTSEDTAVYYCAR | SWRNYGSSFWYFDV | WGAGTTVTVSS | 263 |
| SC16.115 | DVKLVESGGGLVKPGGSLKLSCAASGFTFS | SYTMS | WVRQTPEKRLEWVA | TISSGGSYPYYPDSVKG | RFTISRDNAKNTLYLQMSSLKSEDTAMYYCTR | DVYDGYSY | WGQGTTLTVSS | 267 |
| SC16.116 | QVQLKQSGPGRVQPSQSLSITCTVSGFSLT | SNGVH | WVRQSPGKGLEWLG | VLWSGGSTDYNAAFIS | RLSISKDNYKSQVFFKMNSLQANDTAIYYCAR | NNNRYGAMDY | WGQGTSVTVSS | 271 |
| SC16.117 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | NYGVH | WVRQPPGKGLEWLG | VIWAGGITNYNSALMS | RLSISEDNSKSQVFLKMNSLQTDDTAMYYCAR | NLGPYAMDY | WGQGTSVTVSS | 275 |
| SC16.118 | EVQLQQSGPDLVKPGASVKISCKASGYSFT | GYYMH | WVKQSHGKSLEWIG | RVNPNNGGTSYNQKFKG | KAILTADKSSSTAYMELRSLTSEDSAVYYCAR | GSYDYAEG | WGQGTLVTVSA | 279 |
| SC16.120 | EIQLQQSGPELVKPGASVKVSCKASGYAFT | SYNMY | WVMQSHGKSLEWIG | YVDPYNGGTSYNQKFKG | KATLTVDKSSSTAYMHLNSLTSEDSAVYYCAR | ENYRYFDY | WGQGTTLTVSS | 283 |
| SC16.121 | EVQLVESGGGLVQPKGSLKLSCAASGFTFN | TYAMN | WVRQAPGKGLEWVA | RIRIKSNNYATYYADSVKD | RFTISRDDSQNMLYLQMNNLKTEDTAVYYCVR | QGYSYDWGPWFAY | WGQGTLVTVSA | 287 |
| SC16.122 | EVQLVESGGGLVKPGGSLKLSCAASGFTFS | DYYMF | WVRQTPEKRLEWVA | TISDGGSYTYFPDSVKG | RFTISRDNAQNNLYLQMSSLKSEDTAMYYCAR | AGTLYAMDY | WGQGTSVTVSS | 291 |
| SC16.123 | QVALKESGPGILQPSQTLSLTCSFSGFSLS | TSGMGVG | WIRQPSGKGLEWLA | HIWWDDVKRYNPALKS | RLTISKDTSSSQVFLKIASVDTADTATYYCAR | MEDYGSSSYFDF | WGHGTTLTVSS | 295 |
| SC16.124 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | SYVMH | WVKQKPGQGLEWIG | YINPYNDGTKYNEKFKG | KATLTSDKSSSTAYMELSSLTSEDSAVYYCAR | GALYYGNYLGYFDV | WGAGTTVTVSS | 299 |
| SC16.125 | DVQLQESGPDLVKPSQSLSLTCTVTGYSIT | SGYSWH | WIRQFPGNKLEWMG | YIHYSGSTNYNPSLKS | RISITRDTSKNQFFLQFKSVTTEDSATYYCAL | EGNYDGFAY | WGQGTLVTVS**S** | 303 |
| SC16.126 | QVQMKESGPGLVAPSQSLSITCTVSGSSLT | NYGVH | WVRQPPGKGLEWLG | VIWAGGSTNYNSALMS | RLSISKDNSKSQVFLKMNSLQTDDTAMYYCAR | DWEGWFAY | WGQGTLVTVSA | 307 |
| SC16.129 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | DYGVS | WIRQPPGKGLEWLG | VIWGGGSTYYNSALKS | RLSISKDNSKSQVFLELNSLQTDDTAIYYCAK | HYGHYAAY | WGQGTLVTVSA | 311 |
| SC16.130 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | SYVMH | WVKQKPGQGLEWIG | YINPYNDGTEYNEKFKG | KATLTSDKSSSTAYMELSSLTSEDSAVYYCAR | GVYDGYSYFDY | WGQGTTLTVSS | 315 |
| SC16.131 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | NYGVH | WVRQPPGKGLEWLG | VIWAGGITNYNSALMS | RLSISEDNSKSQVFLKMNSLQTDDTAMYYCAR | NLGPYAMDY | WGQGTSVTVSS | 319 |
| SC16.132 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | DYGVS | WIRQPPGKGLEWLG | VVWGGGSTYYNSALKS | RLSITKDNSKSQVFLKMNSLQTDDTAMYYCAK | QRGQYGAY | WGQGTLVTVSA | 323 |
| SC16.133 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | NYAVH | WVRQSPGKGLEWLG | VIWSDGSTDYNAAFIS | RLSISKDNSKSQVFFKMNSLQADDTAMYYCAR | KKGGWFPWFAY | WGQGTLVTVSA | 327 |
| SC16.134 | EVQLQQSGPDLVKPGASVKISCKASGYSFT | GYYMH | WVKQSHGKRLEWIG | RVNPNNGGTNYNQKFKG | KAILTVDKSSSTAYMELRSLTSEDSAVYYCAR | GSYDNAEG | WGQGTLVTVSA | 331 |
| SC16.135 | QVQLQQSGAELVRPGTSVKVSCKASGYAFT | NYLIE | WVKQRPGQGLEWIG | VINPGSGGTNSNEKFKA | KATLTADKSSSTAYMQLSSLTSADSAVYFCAR | SDYDYAFYAMDY | WGQGTSVTVSS | 335 |
| SC16.136 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | SYVMH | WVKQKPGQGLEWIG | YINPYNDGTKYNEKFKG | KATLTSDKSSSTAYMELSSLTSEDSAVYYCAR | DRSGYEDYYGMDY | WGQGTSVTVSS | 339 |

FIG. 6B cont.

# Amino Acid Sequences of Exemplary Murine anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| SC16.137 | EVQLVESGGDLVKPGGSLKLSCAASGFTFS | SYGMS | WVRQTPDKRLEWVA | TISSGGSYTYYPDSVKG | RFTISRDNAKNTLYLQMSSLKSEDTAMYYCAR | RRADAMDY | WGQGTSVTVSS | 343 |
| SC16.138 | QVQLKESGPGLVAPSQSLSITCTVSGFSLT | DYGVS | WIRQPPGKGLEWLG | VVWGGGSTYYNSALKS | RLSISKDNSKSQVFLKMNSLQTDDTAMYYCAK | QRGQYGAY | WGQGTLVTVSA | 347 |
| SC16.139 | EVQLQQSGPELVKPGASVKMSCKASGYTFT | NYVMH | WVKQKPGQGLEWIG | YINPYNDGTKYNEKFKG | KATLTSDKSSTTAYMALSSLTSEDSAVYYCAV | AYYSNWGFAY | WGQGTLVTVSA | 351 |
| SC16.140 | QVQLQQSGPELVRPGASVKMSCKASGYTFT | SYWMH | WVKQRPGQGLEWIG | MIDPSNSETRLNQKFKD | KATLNVDKSSNTAYMQLSSLTSEDSAVYYCAV | MDYYFDY | WGQGTTLTVSS | 355 |
| SC16.141 | QVQLKQSGPGLVAPSQSLFITCTVSGFSLT | SYEIN | WVRQPPGKGLEWLG | VIWTGGSTNYNSALIS | RLSISKDNSKSLVFLKMNSLQTDDTAIYYCVR | GVYAMDY | WGQGTSVTVSS | 359 |
| SC16.142 | EVQLQQSGPELVKPGASVKISCKASGYTFT | DYNMH | WVKQSHGKSLEWIG | FFYPYNGNTVYSQKFKS | KATLTVDNSSSTAYMELRSLTSEDSAVYYCAR | LNWEGY | WGQGTTL**TVSS** | 363 |
| SC16.143 | QVQLQQSGPELVKPGASVRISCKASGYTFT | SYYIH | WVKQRPGQGLEWIG | WIYPGNGNTKYNEKFKG | KATLTADKSSSTAYMQISSLTSEDSAVYFCAR | ERWLLLWFAY | WGQGTLVTVSA | 367 |
| SC16.144 | QIQLVQSGPELKKPGETVKISCKASGYTFT | NYGMN | WVKQAPGKGLKWVG | WINTYTGEPTYADDFKG | RFAFSLETSASTAYLQIDNLKNEDTATYFCAR | VGDYVGFDY | WGQGTTLTVSS | 371 |
| SC16.147 | QIQLVQSGPELTKPGETVKISCKASGYTFT | DYSLH | WVKQALGKGLKWMG | WINTETGEPAYADDFKG | RFAFSLETSASTAYLQINDLKNEDTTTYFCGI | YDGYAMDY | WGQGTSVTVSS | 375 |
| SC16.148 | QIQLVQSGPELKKPGETVKISCKASGYTLT | NYGMN | WVKQAPGKGLKWMG | WINTYTGEPTYADDFKG | RFAFSLETSARIVYLQINNLKNEDTATYFCAK | YEAHEGFVY | WGQGTLVTVSA | 379 |
| SC16.149 | QVQLKESGPGLVAPSQSLSITCAVSGFSLT | SFGVH | WVRQPPGKGLEWLG | VIWAGGSTNYYSALMS | RLSISIDNSKSQVFLKMNSLQTDDTAMYYCAR | DWEGWFAY | WGQGTLVTVSA | 383 |
| SC16.150 | EIQLQQSGPELVKPGASVKVSCKASGYAFT | SYNMY | WVSQSHGKSLEWIG | YIDPYNGGTSYNQKFRG | KATLTVDKSSSTAYMHLNSLTSEDSAVYYCAR | ENYRYFDF | WGQGTTLTVSS | 387 |



FIG. 6B cont.

# Amino Acid Sequences of Exemplary Humanized Anti-DLL3 Antibody Heavy Chain Variable Regions

| mAb | FR1 | CDR1 | FR2 | CDR2 | FR3 | CDR3 | FR4 | SEQ ID NO. |
|---|---|---|---|---|---|---|---|---|
| hSC16.13 | QITLKESGPTLVKPTQTLTLTCTFSGFSLS | TSGMGVG | WIRQPPGKALEWLA | HIWWDDVKRYSPSLKS | RLTITKDTSKNQVVLTMTNMDPVDTATYYCAR | IVSFDNDVVSAMDY | WGQGTLVTVSS | 391 |
| hSC16.15 | QVQLVQSGAEVKKPGASVKVSCKASGYTFT | RYWIH | WIRQAPGQGLEWMG | YINPTTVYTEFNQNFKD | RVTMTRDTSTSTVYMELSSLRSEDTAVYYCAR | GGSNFFDY | WGQGTTVTVSS | 395 |
| hSC16.25 | QITLKESGPTLVKPTQTLTLTCTFSGFSLS | TSGMGVG | WIRQPPGKALEWLT | DIWWDDNKYYNPSLKS | RLTITKDTSKNQVVLTMTNMDPVDTATYYCAR | RVNYYYDPYYAMDY | WGQGTLVTVSS | 399 |
| hSC16.34 | QVQLVQSGAEVKKPGASVKVSCKASGYTFT | NYGMN | WVRQAPGQRLEWMG | WINTYTGDPTYADDFKG | RVTITRDTSASTAYMELSSLRSEDTAVYYCAR | IGGNSPSDY | WGQGTTVTVSS | 403 |
| hSC16.56 | QVQLVQSGAEVKKPGASVKVSCKASGYTFT | NYGMN | WVRQAPGQGLEWMG | WINTYTGEPTYADDFKG | RVTMTTDTSTSTAYMELRSLRSDDTAVYYCAR | IGDSSPSDY | WGQGTLVTVSS | 407 |

FIG. 6B cont.

# Domain-Level Mapping of Anti-DLL3 Antibodies

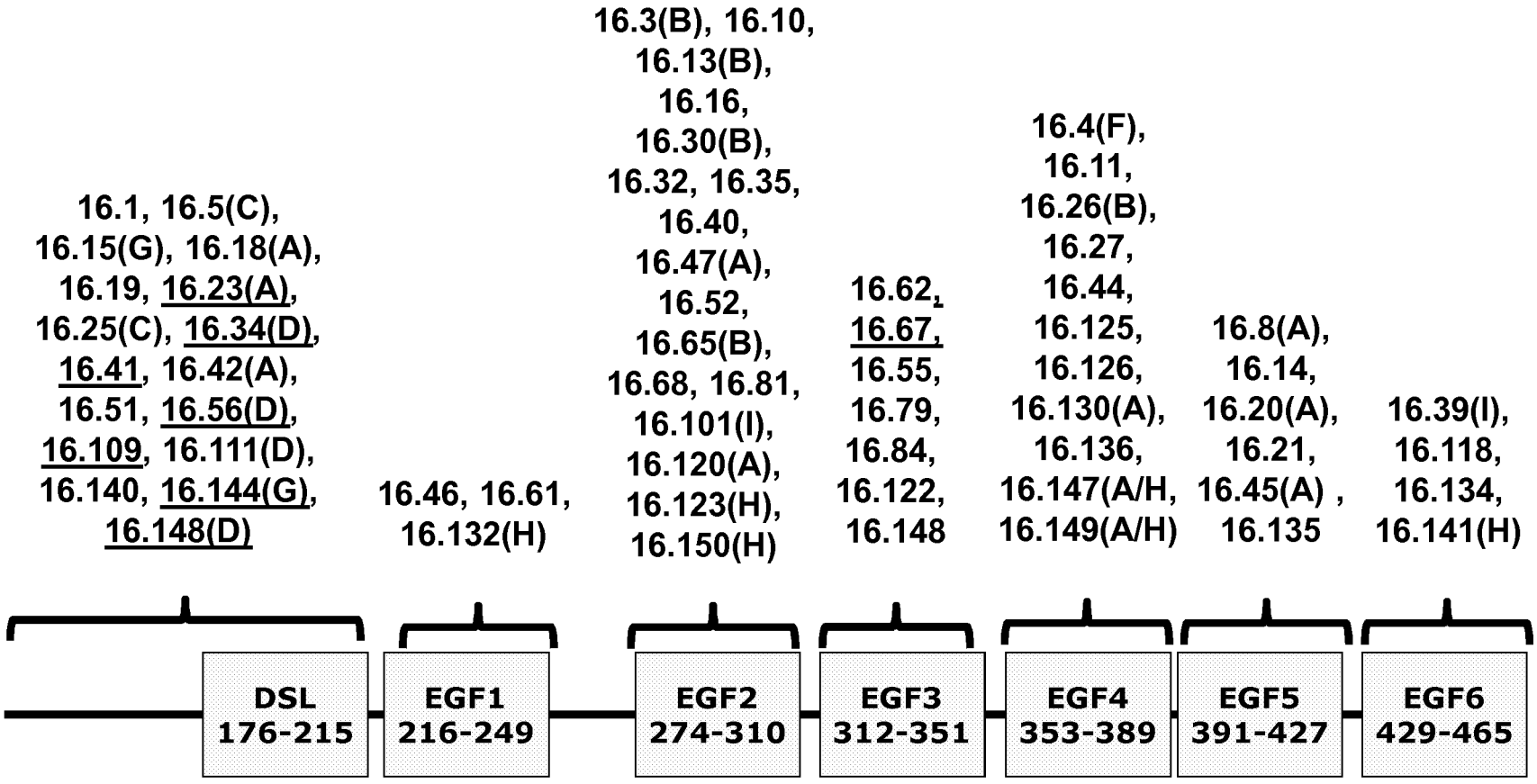


FIG. 7

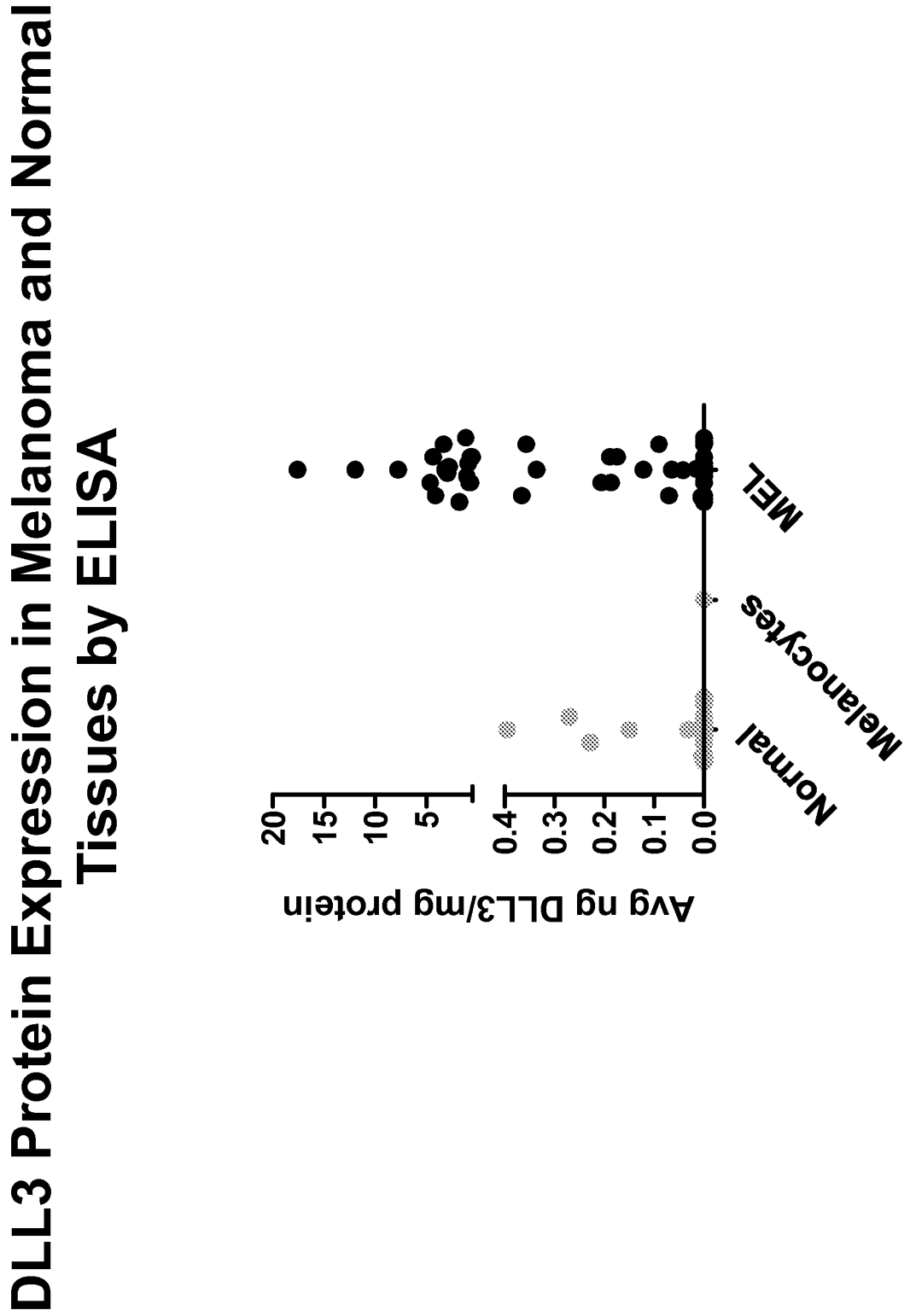
DLL3 Protein Expression in Melanoma and Normal Tissues by ELISA
Avg ng DLL3/mg protein
20
15
10
5
0.4
0.3
0.2
0.1
0.0
Normal
Melanocytes
MEL

FIG. 8

# DLL3 Protein Expression using Immunohistochemistry

| Melanoma Line | DLL3 Expression on p0 | DLL3 Expression on PDX | Mouse IgG2a |
|---|---|---|---|
| MEL7 | - | ND | - |
| MEL8 | +, 50%, c/m | ND | - |
| MEL17 | +++, 95%, c/m | ND | - |
| MEL18 | +++, 85%, c/m | ND | - |
| MEL19 | +++, 75%, m/c | ++, 10%, m/c | - |
| MEL20 | - | +/++, 10%, c/m | - |
| MEL26 | - | - | - |
| MEL28 | - | ND | - |
| MEL30 | ++/+++, 20%, m/c | - | - |
| MEL32 | - | - | - |
| MEL37 | +/++, 40%, c/m | ND | - |
| MEL38 | - | - | - |
| MEL43 | - | - | - |
| MEL48 | +/+++, 10%, c/m | ++, 60%, c/m | - |
| MEL50 | - | ND | - |
| MEL51 | - | - | - |
| MEL54 | - | ND | - |
| MEL63 | - | - | - |
| MEL66 | +/+++, 70%, c/m | +/++, 30%, c/m | - |
| MEL79 | - | - | - |

FIG. 9

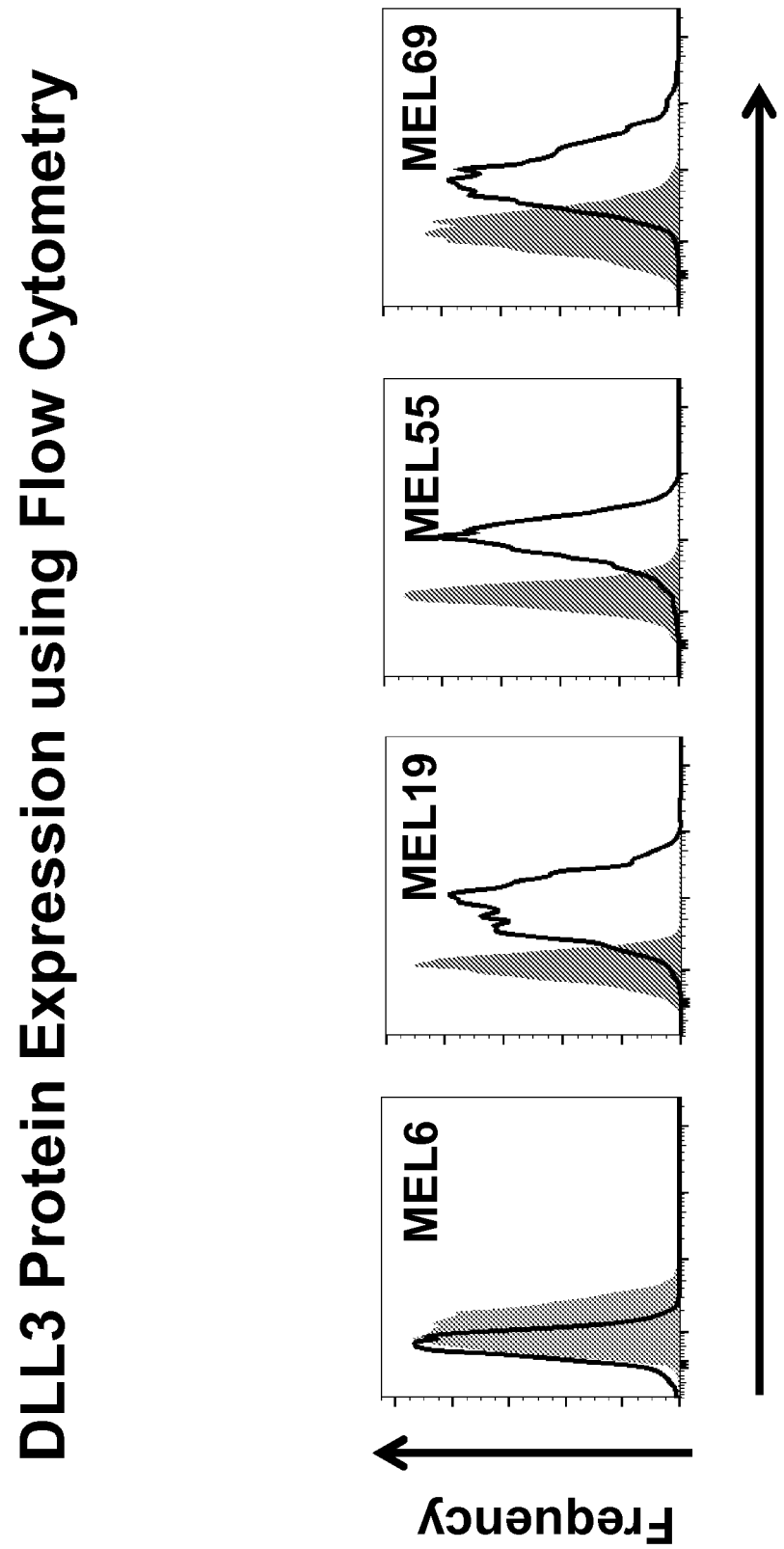
DLL3 Protein Expression using Flow Cytometry
MEL6
MEL19
MEL55
MEL69
Frequency
DLL3

FIG. 10A

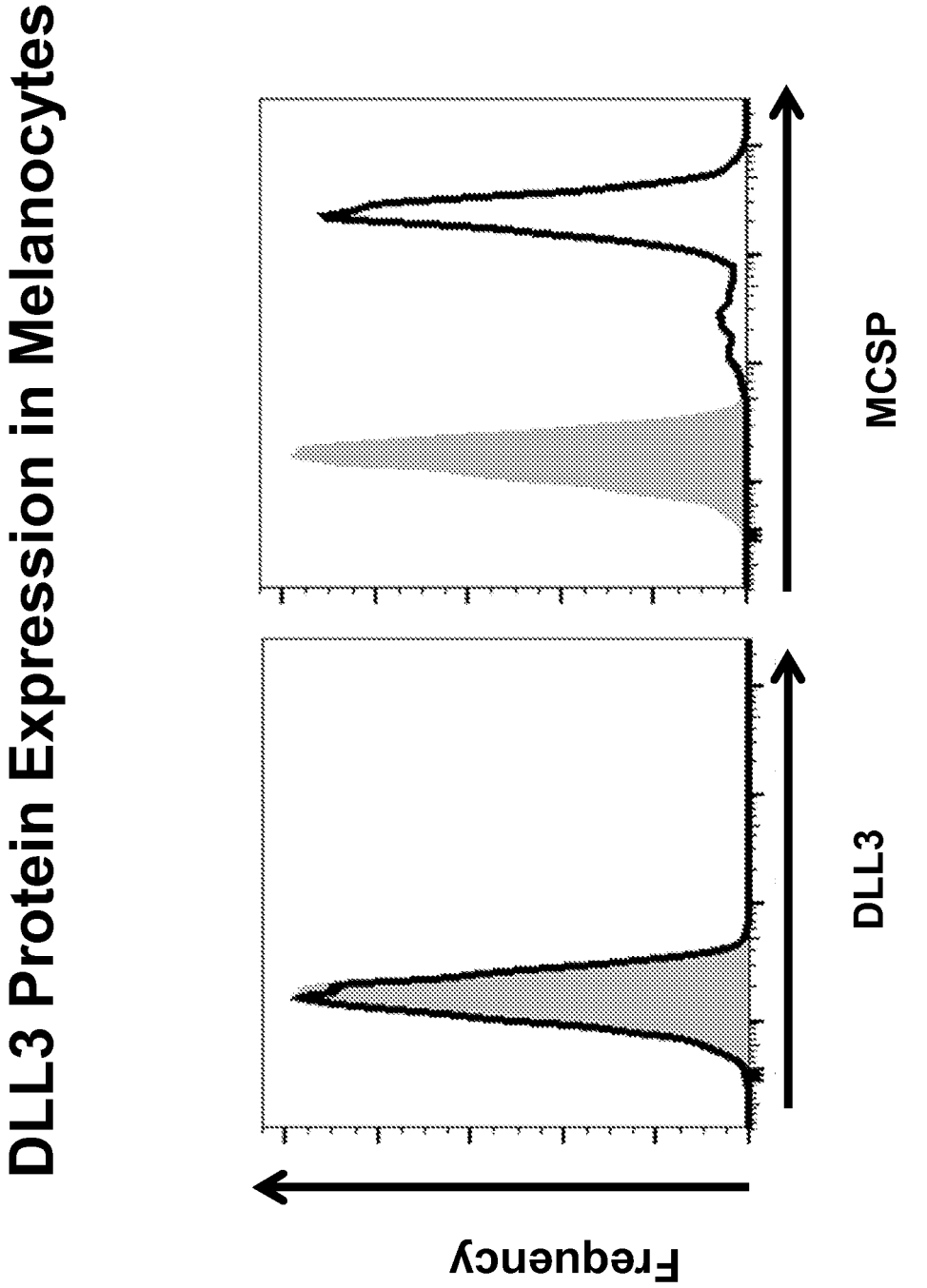
DLL3 Protein Expression in Melanocytes
Frequency
DLL3
MCSP

FIG. 10B

**Anti-DLL3 ADCs Mediate Delivery of Cytotoxic Agents *In Vitro***

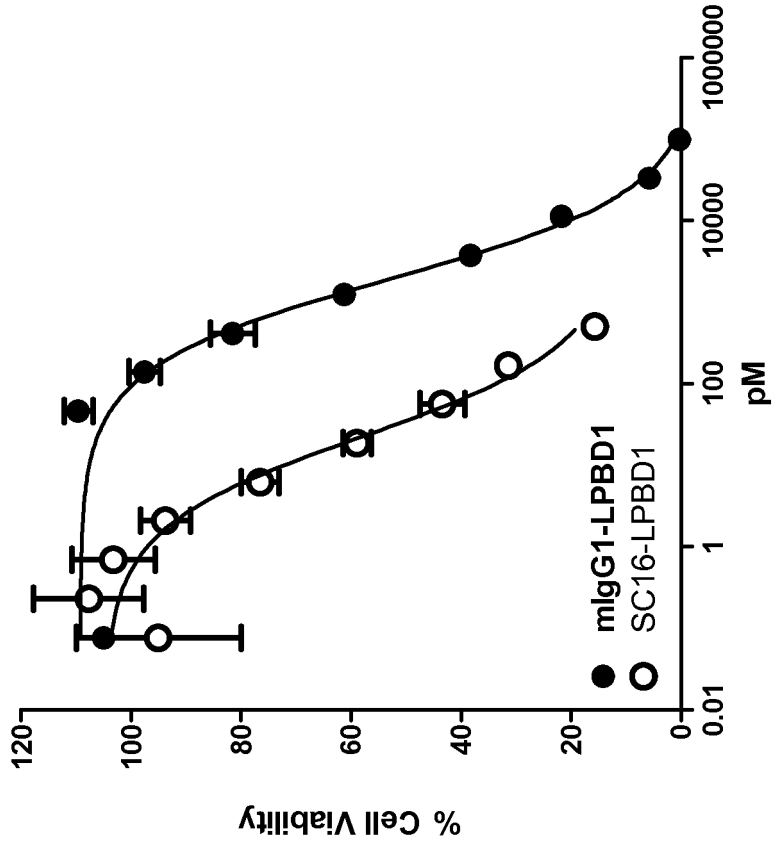


FIG. 11A

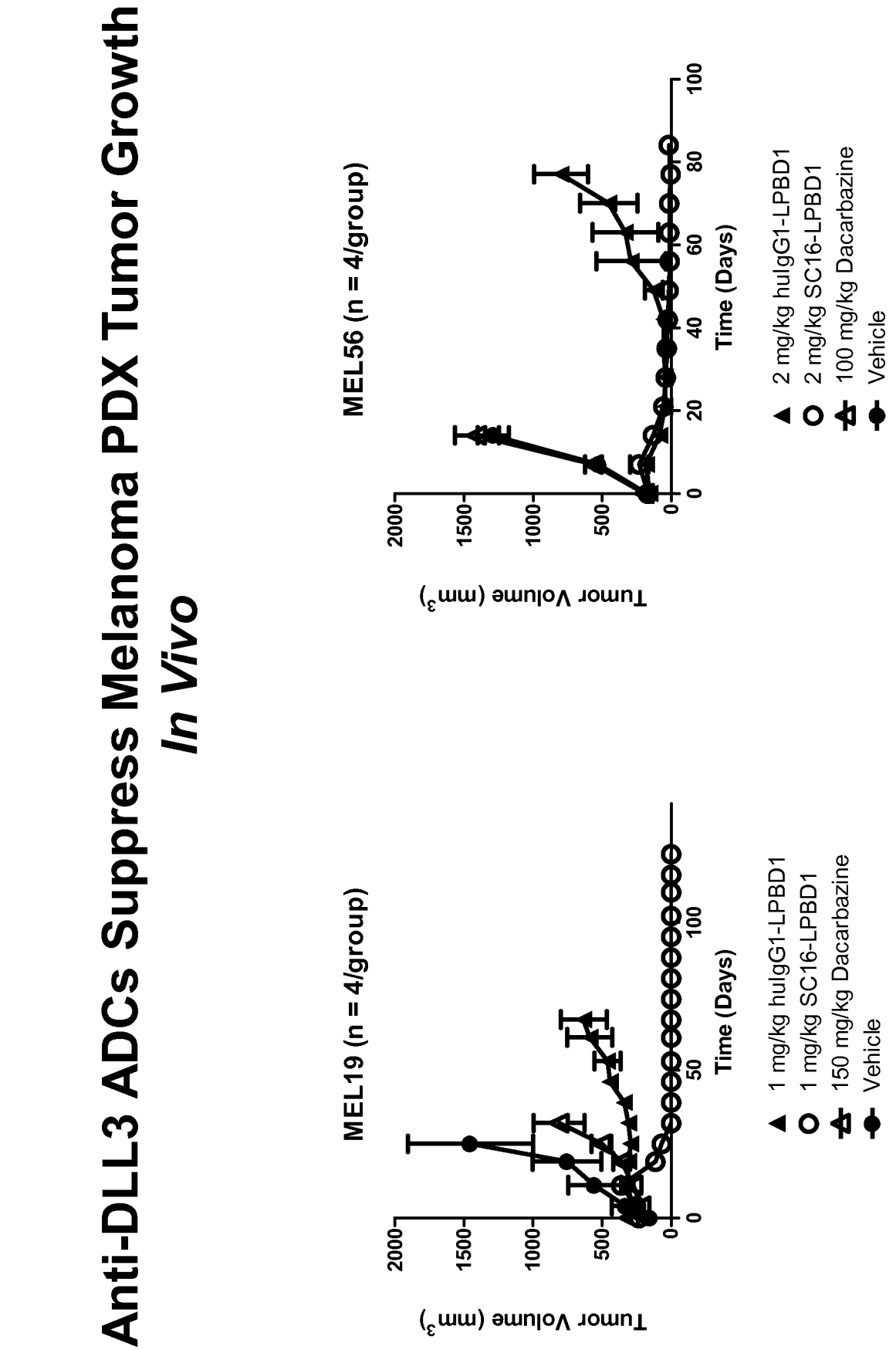


FIG. 11B

FIG. 11C

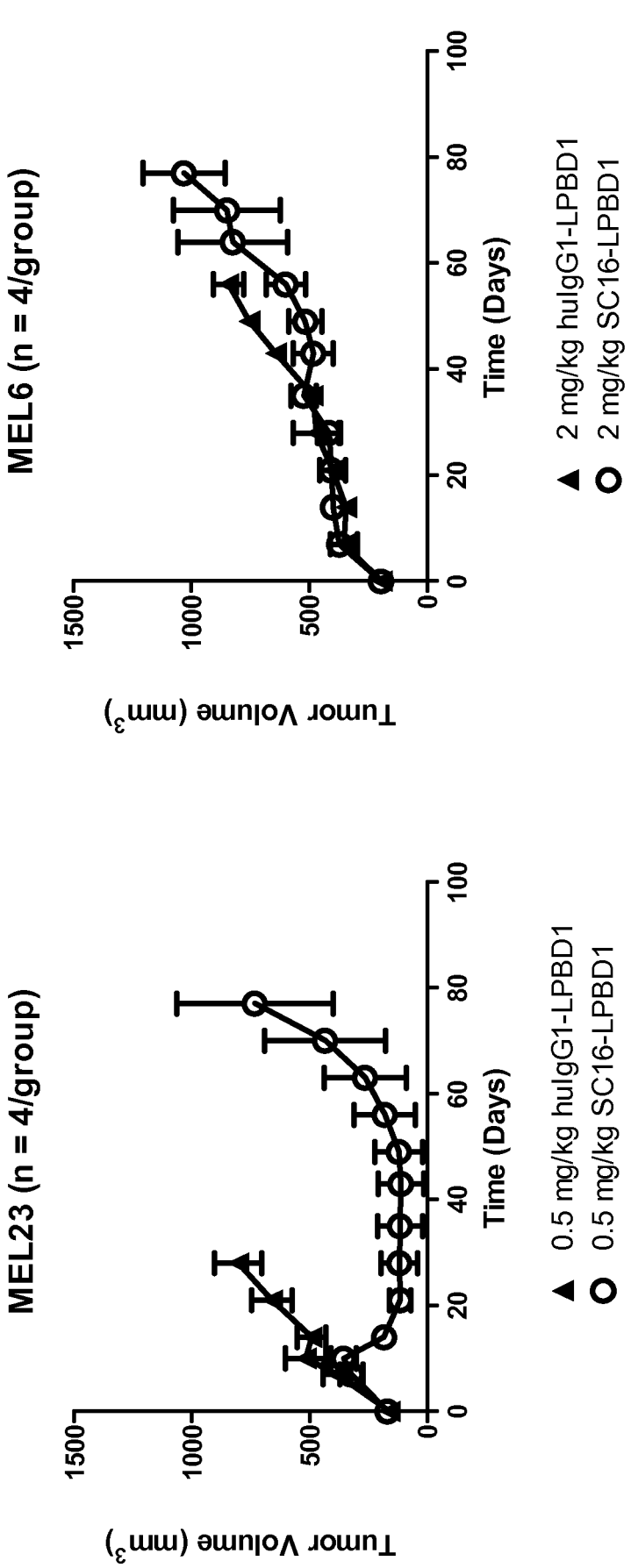


FIG. 11D

FIG. 11E

# Positively Correlated Surrogate Biomarkers for the Expression of DLL3 Protein in Melanoma

| Gene Symbol | Correlation with DLL3 |
|---|---|
| DLL3 | 1.000 |
| PUS7 | 0.777 |
| EFHD1 | 0.709 |
| PTP4A3 | 0.688 |
| MYO1B | 0.675 |
| NFATC1 | 0.659 |
| NUDT14 | 0.657 |
| NR6A1 | 0.657 |
| JAG2 | 0.654 |
| HAUS5 | 0.652 |
| ADAT3 | 0.649 |
| PAFAH1B3 | 0.648 |
| CCDC136 | 0.645 |
| GAS5 | 0.643 |
| PPFIA3 | 0.643 |
| CDK8 | 0.639 |
| ZNF114 | 0.637 |
| KHSRP | 0.637 |
| MURC | 0.634 |
| ZNRD1 | 0.634 |
| RPS19 | 0.631 |
| LRRC43 | 0.630 |
| ZCCHC3 | 0.627 |
| LIN9 | 0.624 |

| Gene Symbol | Correlation with DLL3 |
|---|---|
| ZNF417 | 0.618 |
| ATOH8 | 0.618 |
| ATP6V1C1 | 0.618 |
| RPS10 | 0.617 |
| RPS19 | 0.617 |
| BCL7A | 0.617 |
| CHRNB2 | 0.614 |
| CAMKK1 | 0.612 |
| SNORA43 | 0.611 |
| TMEM117 | 0.610 |
| CBLL1 | 0.609 |
| HSPA12B | 0.609 |
| OR4C46 | 0.606 |
| ZNF419 | 0.605 |
| ZNF570 | 0.604 |
| FANCF | 0.603 |
| ZNF480 | 0.602 |
| TRPM6 | 0.601 |
| CHD7 | 0.601 |

FIG. 12A

# Anti-Correlative Surrogate Biomarkers for the Expression of DLL3 Protein in Melanoma

| Gene Symbol | Correlation with DLL3 |
|---|---|
| ZBTB20 | -0.600 |
| GPR155 | -0.604 |
| MST1 | -0.605 |
| CLVS1 | -0.607 |
| P4HA2 | -0.608 |
| CIITA | -0.612 |
| ITPR2 | -0.613 |
| BRK1 | -0.615 |
| TGOLN2 | -0.616 |
| TADA3 | -0.618 |
| SLC38A11 | -0.620 |
| KCNQ1 | -0.620 |
| TMED6 | -0.621 |
| NRXN3 | -0.636 |
| SNX24 | -0.640 |
| OLFML3 | -0.647 |
| KCT2 | -0.649 |
| PJA2 | -0.649 |
| SEPT8 | -0.682 |

FIG. 12B

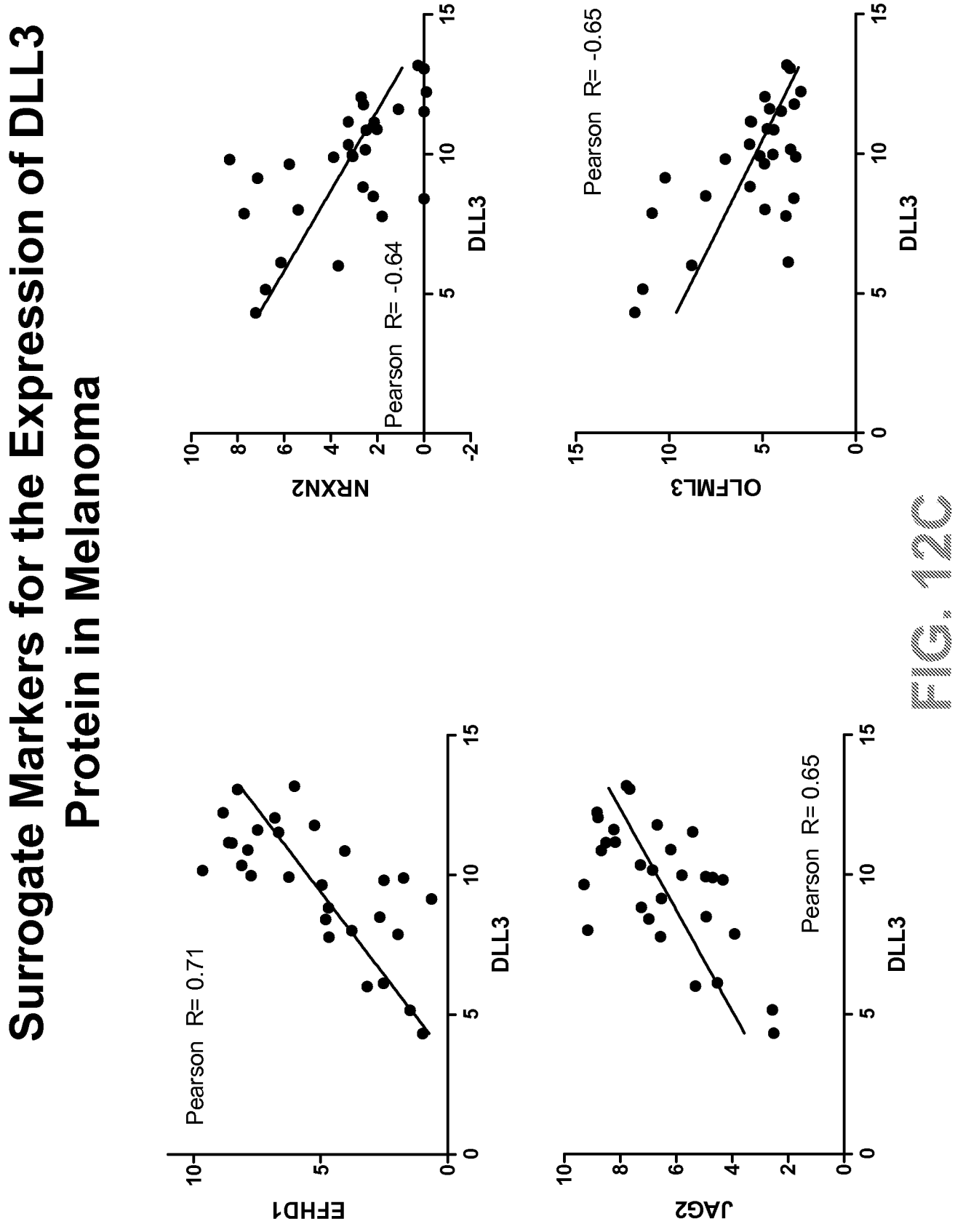
Surrogate Markers for the Expression of DLL3 Protein in Melanoma
Pearson R= 0.71
EFHD1
DLL3
Pearson R= -0.64
NRXN2
DLL3
Pearson R= 0.65
JAG2
DLL3
Pearson R= -0.65
OLFML3
DLL3

FIG. 12C

# Mutation Analysis of Melanoma PDX

| | # of DLL3 Positive PDX with mutations (n=14) | # of DLL3 Negative PDX with mutations (n=18) |
|---|---|---|
| BRAF | 4 V600E; 1 V600R | 8 V600E; 1 V600K |
| NRAS | 1 Q61R | |
| KIT | 1 L576P | |
| TP53 | 4 point mutations | 1 point mutation; 1 CNV-loss |
| CDKN2A | 7 point mutations; 5 CNV-loss | 1 point mutation; 8 CNV-loss |
| PTEN | 3 point mutations | 4 point mutations; 2 CNV-loss |
| ARID2 | 2 point mutations | 2 point mutations |
| PIK3CA | 2 point mutations | 2 point mutations |
| CTNNB1 | 1 point mutation | |
| KDR | | 1 C482R |
| MLL2 | | 2 point mutations |
| MECOM | 5 point mutations | 3 point mutations |
| MLL3 | 1 point mutation | 2 point mutations |
| NF1 | 4 point mutations | 2 point mutations |
| PTPRK | 1 point mutation | 1 point mutation |
| TRRAP | 2 point mutations | |

FIG. 13

***In Vivo* Treatment of Melanoma PDX with Anti-DLL3 ADCs Reduces the Frequency of Cancer Stem Cells**

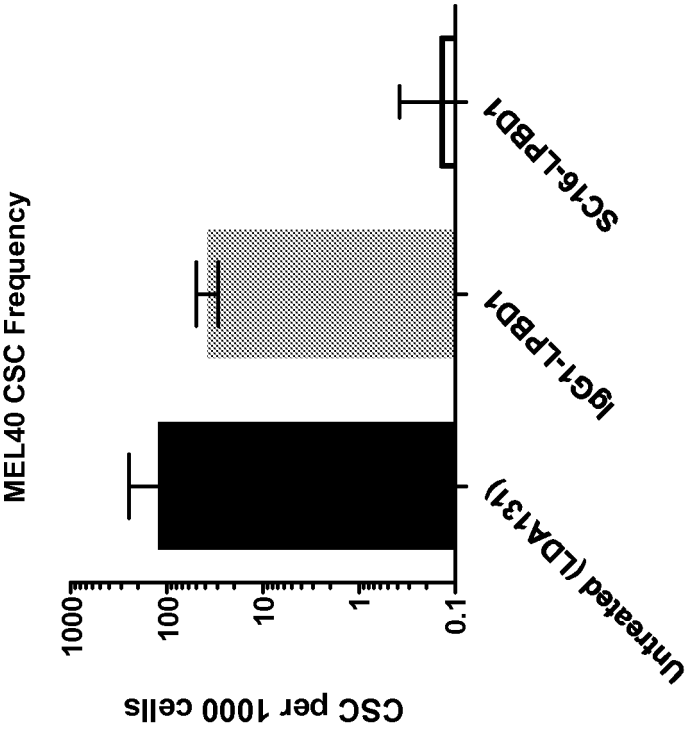


FIG. 14B

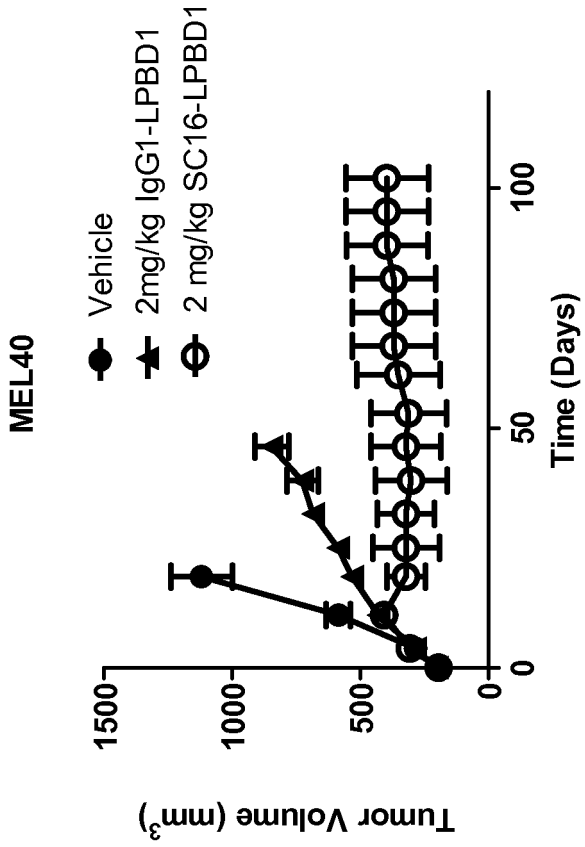


FIG. 14A