Homo sapiens seizure related 6 homolog (SEZ6), transcript variant 1, mRNA
>gi|148839279|ref|NM_178860.4|

(SEQ ID NO: 1)

GATCCCCGGCGCCGTCGCCAGGCGCTGGCCGTGGTGCTGATTCTGTCAGGCGCTGGCGGCGGCAGCGGCGGTGACGGCTGCGG
CCCCGCTCCCTCTACCCGGCCGGACCCGGCTCTGCCCCCGCGCCCAAGCCCCACCAAGCCCCCCGCCCTCCCGCCGCGGTCCC
AGCCCAGGGCGCGGCCGCAACCAGCACCATGCGCCCGGTAGCCCTGCTGCTCCTGCCCTCGCTGCTGGCGCTCCTGGCTCACG
GACTCTCTTTAGAGGCCCCAACCGTGGGGAAAGGACAAGCCCCAGGCATCGAGGAGACAGATGGCGAGCTGACAGCAGCCCCC
ACACCTGAGCAGCCAGAACGAGGCGTCCACTTTGTCACAACAGCCCCCACCTTGAAGCTGCTCAACCACCACCCGCTGCTTGA
GGAATTCCTACAAGAGGGGCTGGAAAAGGGAGATGAGGAGCTGAGGCCAGCACTGCCCTTCCAGCCTGACCCACCTGCACCCT
TCACCCCAAGTCCCCTTCCCCGCCTGGCCAACCAGGACAGCCGCCCTGTCTTTACCAGCCCCACTCCAGCCATGGCTGCGGTA
CCCACTCAGCCCCAGTCCAAGGAGGGACCCTGGAGTCCGGAGTCAGAGTCCCCTATGCTTCGAATCACAGCTCCCCTACCTCC
AGGGCCCAGCATGGCAGTGCCCACCCTAGGCCCAGGGGAGATAGCCAGCACTACACCCCCCAGCAGAGCCTGGACACCAACCC
AAGAGGGTCCTGGAGACATGGGAAGGCCGTGGGTTGCAGAGGTTGTGTCCCAGGGCGCAGGGATCGGGATCCAGGGGACCATC
ACCTCCTCCACAGCTTCAGGAGATGATGAGGAGACCACCACTACCACCACCATCATCACCACCACCATCACCACAGTCCAGAC
ACCAGGCCCTTGTAGCTGGAATTTCTCAGGCCCAGAGGGCTCTCTGGACTCCCCTACAGACCTCAGCTCCCCCACTGATGTTG
GCCTGGACTGCTTCTTCTACATCTCTGTCTACCCTGGCTATGGCGTGGAAATCAAGGTCCAGAATATCAGCCTCCGGGAAGGG
GAGACAGTGACTGTGGAAGGCCTGGGGGGGCCTGACCCACTGCCCCTGGCCAACCAGTCTTTCCTGCTGCGGGGCCAAGTCAT
CCGCAGCCCCACCCACCAAGCGGCCCTGAGGTTCCAGAGCCTCCCGCCACCGGCTGGCCCTGGCACCTTCCATTTCCATTACC
AAGCCTATCTCCTGAGCTGCCACTTTCCCCGTCGTCCAGCTTATGGAGATGTGACTGTCACCAGCCTCCACCCAGGGGGTAGT
GCCCGCTTCCATTGTGCCACTGGCTACCAGCTGAAGGGCGCCAGGCATCTCACCTGTCTCAATGCCACCCAGCCCTTCTGGGA
TTCAAAGGAGCCCGTCTGCATCGCTGCTTGCGGCGGAGTGATCCGCAATGCCACCACCGGCCGCATCGTCTCTCCAGGCTTCC
CGGGCAACTACAGCAACAACCTCACCTGTCACTGGCTGCTTGAGGCTCCTGAGGGCCAGCGGCTACACCTGCACTTTGAGAAG
GTTTCCCTGGCAGAGGATGATGACAGGCTCATCATTCGCAATGGGGACAACGTGGAGGCCCCACCAGTGTATGATTCCTATGA
GGTGGAATACCTGCCCATTGAGGGCCTGCTCAGCTCTGGCAAACACTTCTTTGTTGAGCTCAGTACTGACAGCAGCGGGGCAG
CTGCAGGCATGGCCCTGCGCTATGAGGCCTTCCAGCAGGGCCATTGCTATGAGCCCTTTGTCAAATACGGTAACTTCAGCAGC
AGCACACCCACCTACCCTGTGGGTACCACTGTGGAGTTCAGCTGCGACCCTGGCTACACCCTGGAGCAGGGCTCCATCATCAT
CGAGTGTGTTGACCCCCACGACCCCCAGTGGAATGAGACAGAGCCAGCCTGCCGAGCCGTGTGCAGCGGGGAGATCACAGACT
CGGCTGGCGTGGTACTCTCTCCCAACTGGCCAGAGCCCTACGGTCGTGGGCAGGATTGTATCTGGGGTGTGCATGTGGAAGAG
GACAAGCGCATCATGCTGGACATCCGAGTGCTGCGCATAGGCCCTGGTGATGTGCTTACCTTCTATGATGGGGATGACCTGAC
GGCCCGGGTTCTGGGCCAGTACTCAGGGCCCCGTAGCCACTTCAAGCTCTTTACCTCCATGGCTGATGTCACCATTCAGTTCC
AGTCGGACCCCGGGACCTCAGTGCTGGGCTACCAGCAGGGCTTCGTCATCCACTTCTTTGAGGTGCCCCGCAATGACACATGT
CCGGAGCTGCCTGAGATCCCCAATGGCTGGAAGAGCCCATCGCAGCCTGAGCTAGTGCACGGCACCGTGGTCACTTACCAGTG
CTACCCTGGCTACCAGGTAGTGGGATCCAGTGTCCTCATGTGCCAGTGGGACCTAACTTGGAGTGAGGACCTGCCCTCATGCC
AGAGGGTGACTTCCTGCCACGATCCTGGAGATGTGGAGCACAGCCGACGCCTCATATCCAGCCCCAAGTTTCCCGTGGGGGCC
ACCGTGCAATATATCTGTGACCAGGGTTTTGTGCTGATGGGCAGCTCCATCCTCACCTGCCATGATCGCCAGGCTGGCAGCCC
CAAGTGGAGTGACCGGGCCCCTAAATGTCTCCTGGAACAGCTCAAGCCATGCCATGGTCTCAGTGCCCCTGAGAATGGTGCCC
GAAGTCCTGAGAAGCAGCTACACCCAGCAGGGGCCACCATCCACTTCTCGTGTGCCCCTGGCTATGTGCTGAAGGGCCAGGCC
AGCATCAAGTGTGTGCCTGGGCACCCCTCGCATTGGAGTGACCCCCCACCCATCTGTAGGGCTGCCTCTCTGGATGGGTTCTA
CAACAGTCGCAGCCTGGATGTTGCCAAGGCACCTGCTGCCTCCAGCACCCTGGATGCTGCCCACATTGCAGCTGCCATCTTCT
TGCCACTGGTGGCGATGGTGTTGTTGGTAGGAGGTGTATACTTCTACTTCTCCAGGCTCCAGGGAAAAAGCTCCCTGCAGCTG
CCCCGCCCCCCGCCCCCGCCCCTACAACCGCATTACCATAGAGTCAGCGTTTGACAATCCAACTTACGAGACTGGATCTCTTTC
CTTTGCAGGAGACGAGAGAATATGAAGTCTCCATCTAGGTGGGGGCAGTCTAGGGAAGTCAACTCAGACTTGCACCACAGTCC
AGCAGCAAGGCTCCTTGCTTCCTGCTGTCCCTCCACCTCCTGTATATACCACCTAGGAGGAGATGCCACCAAGCCCTCAAGAA
GTTGTGCCCTTCCCCGCCTGCGATGCCCACCATGGCCTATTTTCTTGGTGTCATTGCCCACTTGGGGCCCTTCATTGGGCCCA
TGTCAGGGGGCATCTACCTGTGGGAAGAACATAGCTGGAGCACAAGCATCAACAGCCAGCATCCTGAGCCTCCTCATGCCCTG
GACCAGCCTGGAACACACTAGCAGAGCAGGAGTACCTTTCTCCACATGACCACCATCCCGCCCTGGCATGGCAACCTGCAGCA
GGATTAACTTGACCATGGTGGGAACTGCACCAGGGTACTCCTCACAGCGCATCACCAATGGCCAAAACTCCTCTCAACGGTGA
CCTCTGGGTAGTCCTGGCATGCCAACATCAGCCTCTTGGGAGGTCTCTAGTTCTCTAAAGTTCTGGACAGTTCTGCCTCCTGC
CCTGTCCCAGTGGAGGCAGTAATTCTAGGAGATCCTAAGGGGTTCAGGGGGACCCTACCCCCACCTCAGGTTGGGCTTCCCTG
GGCACTCATGCTCCACACCAAAGCAGGACACGCCATTTTCCACTGACCACCCTATACCCTGAGGAAAGGGAGACTTTCCTCCG
ATGTTTATTTAGCTGTTGCAAACATCTTCACCCTAATAGTCCCTCCTCCAATTCCAGCCACTTGTCAGGCTCTCCTCTTGACC
ACTGTGTTATGGGATAAGGGGAGGGGGTGGGCATATTCTGGAGAGGAGCAGAGGTCCAAGGACCCAGGAATTTGGCATGGAAC
AGGTGGTAGGAGAGCCCCAGGGAGACGCCCAGGAGCTGGCTGAAAGCCACTTTGTACATGTAATGTATTATATGGGGTCTGGG
CTCCAGCCAGAGAACAATCTTTTATTTCTGTTGTTTCCTTATTAAAATGGTGTTTTTGGAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAA

FIG. 1A

Homo sapiens seizure related 6 homolog (SEZ6), transcript variant 2, mRNA>gi|148839345|ref|NM_001098635.1|

(SEQ ID NO: 2)

GATCCCCGGCGCCGTCGCCAGGCGCTGGCCGTGGTGCTGATTCTGTCAGGCGCTGGCGGCGGCAGCGGCGGTGACGGCTGCGG
CCCCGCTCCCTCTACCCGGCCGGACCCGGCTCTGCCCCCGCGCCCAAGCCCCACCAAGCCCCCCGCCCTCCCGCCGCGGTCCC
AGCCCAGGGCGCGGCCGCAACCAGCACCATGCGCCCGGTAGCCCTGCTGCTCCTGCCCTCGCTGCTGGCGCTCCTGGCTCACG
GACTCTCTTTAGAGGCCCCAACCGTGGGGAAAGGACAAGCCCCAGGCATCGAGGAGACAGATGGCGAGCTGACAGCAGCCCCC
ACACCTGAGCAGCCAGAACGAGGCGTCCACTTTGTCACAACAGCCCCCACCTTGAAGCTGCTCAACCACCACCCGCTGCTTGA
GGAATTCCTACAAGAGGGGCTGGAAAAGGGAGATGAGGAGCTGAGGCCAGCACTGCCCTTCCAGCCTGACCCACCTGCACCCT
TCACCCCAAGTCCCCTTCCCCGCCTGGCCAACCAGGACAGCCGCCCTGTCTTTACCAGCCCCACTCCAGCCATGGCTGCGGTA
CCCACTCAGCCCCAGTCCAAGGAGGGACCCTGGAGTCCGGAGTCAGAGTCCCCTATGCTTCGAATCACAGCTCCCCTACCTCC
AGGGCCCAGCATGGCAGTGCCCACCCTAGGCCCAGGGGAGATAGCCAGCACTACACCCCCCAGCAGAGCCTGGACACCAACCC
AAGAGGGTCCTGGAGACATGGGAAGGCCGTGGGTTGCAGAGGTTGTGTCCCAGGGCGCAGGGATCGGGATCCAGGGGACCATC
ACCTCCTCCACAGCTTCAGGAGATGATGAGGAGACCACCACTACCACCACCATCATCACCACCACCATCACCACAGTCCAGAC
ACCAGGCCCTTGTAGCTGGAATTTCTCAGGCCCAGAGGGCTCTCTGGACTCCCCTACAGACCTCAGCTCCCCCACTGATGTTG
GCCTGGACTGCTTCTTCTACATCTCTGTCTACCCTGGCTATGGCGTGGAAATCAAGGTCCAGAATATCAGCCTCCGGGAAGGG
GAGACAGTGACTGTGGAAGGCCTGGGGGGGCCTGACCCACTGCCCCTGGCCAACCAGTCTTTCCTGCTGCGGGGCCAAGTCAT
CCGCAGCCCCACCCACCAAGCGGCCCTGAGGTTCCAGAGCCTCCCGCCACCGGCTGGCCCTGGCACCTTCCATTTCCATTACC
AAGCCTATCTCCTGAGCTGCCACTTTCCCCGTCGTCCAGCTTATGGAGATGTGACTGTCACCAGCCTCCACCCAGGGGGTAGT
GCCCGCTTCCATTGTGCCACTGGCTACCAGCTGAAGGGCGCCAGGCATCTCACCTGTCTCAATGCCACCCAGCCCTTCTGGGA
TTCAAAGGAGCCCGTCTGCATCGCTGCTTGCGGCGGAGTGATCCGCAATGCCACCACCGGCCGCATCGTCTCTCCAGGCTTCC
CGGGCAACTACAGCAACAACCTCACCTGTCACTGGCTGCTTGAGGCTCCTGAGGGCCAGCGGCTACACCTGCACTTTGAGAAG
GTTTCCCTGGCAGAGGATGATGACAGGCTCATCATTCGCAATGGGGACAACGTGGAGGCCCCACCAGTGTATGATTCCTATGA
GGTGGAATACCTGCCCATTGAGGGCCTGCTCAGCTCTGGCAAACACTTCTTTGTTGAGCTCAGTACTGACAGCAGCGGGGCAG
CTGCAGGCATGGCCCTGCGCTATGAGGCCTTCCAGCAGGGCCATTGCTATGAGCCCTTTGTCAAATACGGTAACTTCAGCAGC
AGCACACCCACCTACCCTGTGGGTACCACTGTGGAGTTCAGCTGCGACCCTGGCTACACCCTGGAGCAGGGCTCCATCATCAT
CGAGTGTGTTGACCCCCACGACCCCCAGTGGAATGAGACAGAGCCAGCCTGCCGAGCCGTGTGCAGCGGGGAGATCACAGACT
CGGCTGGCGTGGTACTCTCTCCCAACTGGCCAGAGCCCTACGGTCGTGGGCAGGATTGTATCTGGGGTGTGCATGTGGAAGAG
GACAAGCGCATCATGCTGGACATCCGAGTGCTGCGCATAGGCCCTGGTGATGTGCTTACCTTCTATGATGGGGATGACCTGAC
GGCCCGGGTTCTGGGCCAGTACTCAGGGCCCCGTAGCCACTTCAAGCTCTTTACCTCCATGGCTGATGTCACCATTCAGTTCC
AGTCGGACCCCGGGACCTCAGTGCTGGGCTACCAGCAGGGCTTCGTCATCCACTTCTTTGAGGTGCCCCGCAATGACACATGT
CCGGAGCTGCCTGAGATCCCCAATGGCTGGAAGAGCCCATCGCAGCCTGAGCTAGTGCACGGCACCGTGGTCACTTACCAGTG
CTACCCTGGCTACCAGGTAGTGGGATCCAGTGTCCTCATGTGCCAGTGGGACCTAACTTGGAGTGAGGACCTGCCCTCATGCC
AGAGGGTGACTTCCTGCCACGATCCTGGAGATGTGGAGCACAGCCGACGCCTCATATCCAGCCCCAAGTTTCCCGTGGGGGCC
ACCGTGCAATATATCTGTGACCAGGGTTTTGTGCTGATGGGCAGCTCCATCCTCACCTGCCATGATCGCCAGGCTGGCAGCCC
CAAGTGGAGTGACCGGGCCCCTAAATGTCTCCTGGAACAGCTCAAGCCATGCCATGGTCTCAGTGCCCCTGAGAATGGTGCCC
GAAGTCCTGAGAAGCAGCTACACCCAGCAGGGGCCACCATCCACTTCTCGTGTGCCCCTGGCTATGTGCTGAAGGGCCAGGCC
AGCATCAAGTGTGTGCCTGGGCACCCCTCGCATTGGAGTGACCCCCCACCCATCTGTAGGGCTGCCTCTCTGGATGGGTTCTA
CAACAGTCGCAGCCTGGATGTTGCCAAGGCACCTGCTGCCTCCAGCACCCTGGATGCTGCCCACATTGCAGCTGCCATCTTCT
TGCCACTGGTGGCGATGGTGTTGTTGGTAGGAGGTGTATACTTCTACTTCTCCAGGCTCCAGGGAAAAAGCTCCCTGCAGCTG
CCCCGCCCCCGCCCCCGCCCCTACAACCGCATTACCATAGAGTCAGCGTTTGACAATCCAACTTACGAGACTGGAGAGACGAG
AGAATATGAAGTCTCCATCTAGGTGGGGGCAGTCTAGGGAAGTCAACTCAGACTTGCACCACAGTCCAGCAGCAAGGCTCCTT
GCTTCCTGCTGTCCCTCCACCTCCTGTATATACCACCTAGGAGGAGATGCCACCAAGCCCTCAAGAAGTTGTGCCCTTCCCCG
CCTGCGATGCCCACCATGGCCTATTTTCTTGGTGTCATTGCCCACTTGGGGCCCTTCATTGGGCCCATGTCAGGGGGCATCTA
CCTGTGGGAAGAACATAGCTGGAGCACAAGCATCAACAGCCAGCATCCTGAGCCTCCTCATGCCCTGGACCAGCCTGGAACAC
ACTAGCAGAGCAGGAGTACCTTTCTCCACATGACCACCATCCCGCCCTGGCATGGCAACCTGCAGCAGGATTAACTTGACCAT
GGTGGGAACTGCACCAGGGTACTCCTCACAGCGCCATCACCAATGGCCAAAACTCCTCTCAACGGTGACCTCTGGGTAGTCCT
GGCATGCCAACATCAGCCTCTTGGGAGGTCTCTAGTTCTCTAAAGTTCTGGACAGTTCTGCCTCCTGCCCTGTCCCAGTGGAG
GCAGTAATTCTAGGAGATCCTAAGGGGTTCAGGGGGACCCTACCCCCACCTCAGGTTGGGCTTCCCTGGGCACTCATGCTCCA
CACCAAAGCAGGACACGCCATTTTCCACTGACCACCCTATACCCTGAGGAAAGGGAGACTTTCCTCCGATGTTTATTTAGCTG
TTGCAAACATCTTCACCCTAATAGTCCCTCCTCCAATTCCAGCCACTTGTCAGGCTCTCCTCTTGACCACTGTGTTATGGGAT
AAGGGGAGGGGGTGGGCATATTCTGGAGAGGAGCAGAGGTCCAAGGACCCAGGAATTTGGCATGGAACAGGTGGTAGGAGAGC
CCCAGGGAGACGCCCAGGAGCTGGCTGAAAGCCACTTTGTACATGTAATGTATTATATGGGGTCTGGGCTCCAGCCAGAGAAC
AATCTTTTATTTCTGTTGTTTCCTTATTAAAATGGTGTTTTTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A

FIG. 1B

Homo sapiens seizure protein 6 homolog isoform 1 precursor
>gi|148839280|ref|NP_849191.3|

(SEQ ID NO: 3)

MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHH
PLLEEFLQEGLEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGP
WSPESESPMLRITAPLPPGPSMAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGI
GIQGTITSSTASGDDEETTTTTTIITTTTIITTVQTPGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYP
GYGVEIKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRGQVIRSPTHQAALRFQSLPPPAGPGTFHFH
YQAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNATQPFWDSKEPVCIAACGG
VIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVEAPPVYDSY
EVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFS
CDPGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVE
EDKRIMLDIRVLRIGPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQFQSDPGTSVLGYQQ
GFVIHFFEVPRNDTCPELPEIPNGWKSPSQPELVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDL
PSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYICDQGFVLMGSSILTCHDRQAGSPKWSDRAPKCL
LEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKCVPGHPSHWSDPPPICRAASL
DGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLPRPRPYNRITI
ESAFDNPTYETGSLSFAGDERI

FIG. 1C

Homo sapiens seizure protein 6 homolog isoform 2 precursor
>gi|148839346|ref|NP_001092105.1|

(SEQ ID NO: 4)

MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPT
LKLLNHHPLLEEFLQEGLEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAM
AAVPTQPQSKEGPWSPESESPMLRITAPLPPGPSMAVPTLGPGEIASTTPPSRAWTPTQEG
PGDMGRPWVAEVVSQGAGIGIQGTITSSTASGDDEETTTTTTTIITTTITTVQTPGPCSWNFS
GPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETVTVEGLGGPDPLPLA
NQSFLLRGQVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLH
PGGSARFHCATGYQLKGARHLTCLNATQPFWDSKEPVCIAACGGVIRNATTGRIVSPGFPG
NYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVEAPPVVDSYEVEYLPIEG
LLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSC
DPGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCI
WGVHVEEDKRIMLDIRVLRIGPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQ
FQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGWKSPSQPELVHGTWVTYQCYPGY
QVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYICDQG
FVLMGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIH
FSCAPGYVLKGQASIKCVPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAH
IAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLPRPRPYNRITIESAFDNPTYETGETREYE
VSI

FIG. 1D

Alignment of SEZ6 Isoforms

```
                                    1                                                                                80
   hSEZ6v1 (NP_849191)       (1) MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHHPLLEEFLQEG
hSEZ6v2 (NP_001092105)       (1) MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHHPLLEEFLQEG
                                   81                                                                              160
   hSEZ6v1 (NP_849191)      (81) LEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPESESPMLRITAPLPPGPS
hSEZ6v2 (NP_001092105)      (81) LEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPESESPMLRITAPLPPGPS
                                  161                                                                              240
   hSEZ6v1 (NP_849191)     (161) MAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSSTASGDDEETTTTTTIITTTITTVQT
hSEZ6v2 (NP_001092105)     (161) MAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSSTASGDDEETTTTTTIITTTITTVQT
                                  241                                                                              320
   hSEZ6v1 (NP_849191)     (241) PGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRG
hSEZ6v2 (NP_001092105)     (241) PGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRG
                                  321                                                                              400
   hSEZ6v1 (NP_849191)     (321) QVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNA
hSEZ6v2 (NP_001092105)     (321) QVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNA
                                  401                                                                              480
   hSEZ6v1 (NP_849191)     (401) TQPFWDSKEPVCIAACGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVE
hSEZ6v2 (NP_001092105)     (401) TQPFWDSKEPVCIAACGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVE
                                  481                                                                              560
   hSEZ6v1 (NP_849191)     (481) APPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSCD
hSEZ6v2 (NP_001092105)     (481) APPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSCD
                                  561                                                                              640
   hSEZ6v1 (NP_849191)     (561) PGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRI
hSEZ6v2 (NP_001092105)     (561) PGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRI
                                  641                                                                              720
   hSEZ6v1 (NP_849191)     (641) GPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGW
hSEZ6v2 (NP_001092105)     (641) GPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGW
                                  721                                                                              800
   hSEZ6v1 (NP_849191)     (721) KSPSQPELVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFFVGATVQYICD
hSEZ6v2 (NP_001092105)     (721) KSPSQPELVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYICD
                                  801                                                                              880
   hSEZ6v1 (NP_849191)     (801) QGFVLMGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKC
hSEZ6v2 (NP_001092105)     (801) QGFVLMGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKC
                                  881                                                                              960
   hSEZ6v1 (NP_849191)     (881) VPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLP
hSEZ6v2 (NP_001092105)     (881) VPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLP
                                  961                                994
   hSEZ6v1 (NP_849191)     (961) RPRPRFYNRITIESAFDNPTYETGSLSFAGDERI    (SEQ ID NO: 3)
hSEZ6v2 (NP_001092105)     (961) RPRPRFYNRITIESAFDNPTYETGETREYEVSI-    (SEQ ID NO: 4)
```

FIG. 1E

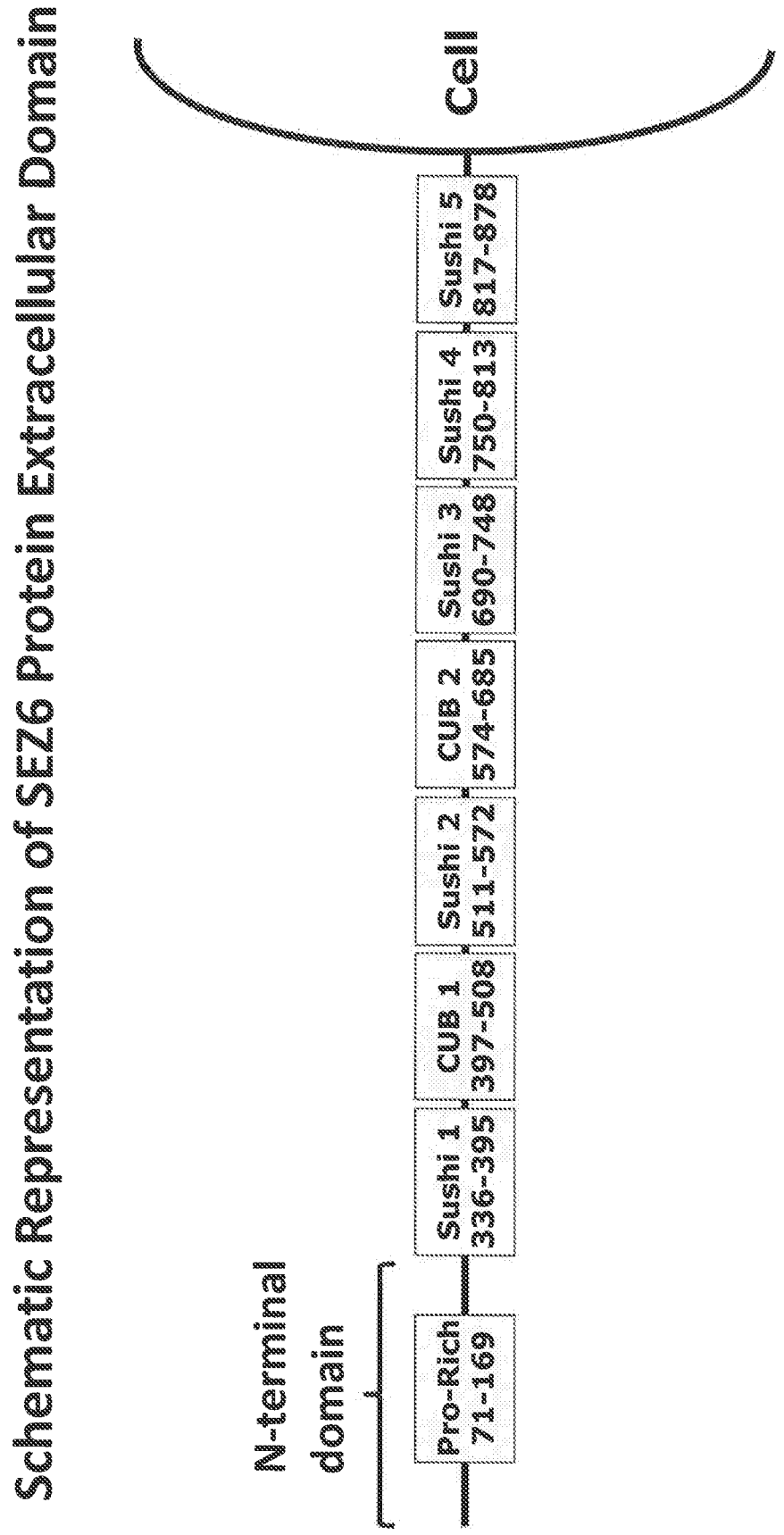

Schematic Representation of SEZ6 Protein Extracellular Domain
N-terminal domain
Pro-Rich 71-169
Sushi 1 336-395
CUB 1 397-508
Sushi 2 511-572
CUB 2 574-685
Sushi 3 690-748
Sushi 4 750-813
Sushi 5 817-878
Cell

FIG. 1F

Percent Identity Between Full Length Mature SEZ6 Proteins from Various Species

SEZ6	rhesus (XP_001110503)	Cynomolgus (herein)	mouse (NP_067261)	rat (NP_001099224)
Human 1 (NP_849191)		97.5%	90.5%	90.4%
Human 2 (NP_001092105)	91.7%			
rhesus (XP_001110503)		93.0%		
mouse (NP_067261)				96.7%

FIG. 2A

Homo Sapiens SEZ6, SEZ6L, and SEZ6L2 Sequence Accession Numbers - NCBI

		mRNA	protein
SEZ6	1	NM_178860	NP_849191
	2	NM_001098635	NP_001092105
SEZ6L	1	NM_021115	NP_066938
	2	NM_001184773	NP_001171702
	3	NM_001184774	NP_001171703
	4	NM_001184775	NP_001701704
	5	NM_001184776	NP_001171705
	6	NM_001184777	NP_001171706
SEZ6L2	1	NM_012410	NP_036542
	2	NM_201575	NP_963869
	3	NM_001114099	NP_001107571
	4	NM_001114100	NP_001107572
	5	NM_001243332	NP_001230261
	6	NM_001243333	NP_001230262

FIG. 2B

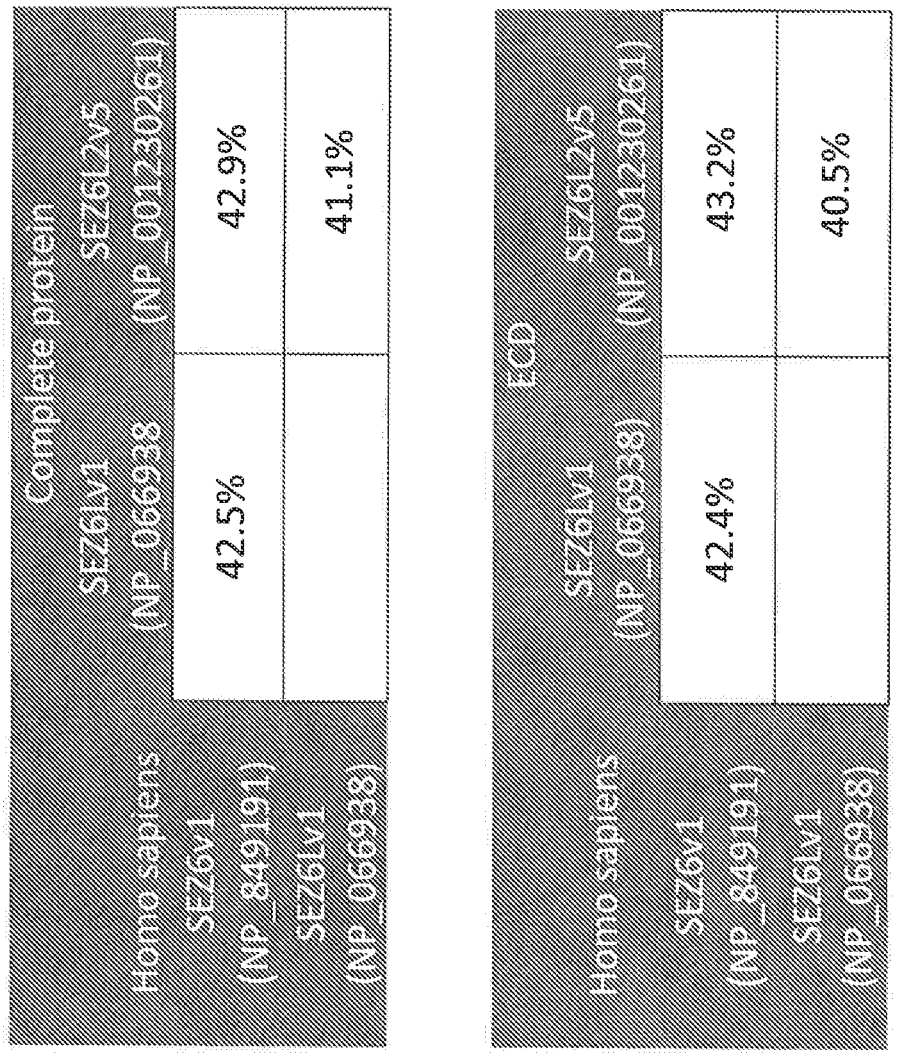

Percent Identity between Various
Human SEZ6, SEZ6L and SEZ6L2 Proteins
Complete protein
Homo sapiens
SEZ6V1
(NP_849191)
SEZ6LV1
(NP_066938)
SEZ6L2V5
(NP_001230261)
42.5%
42.9%
41.1%
ECD
Homo sapiens
SEZ6V1
(NP_849191)
SEZ6LV1
(NP_066938)
SEZ6L2V5
(NP_001230261)
42.4%
43.2%
40.5%

FIG. 2C

>cDNA Sequence of hSCRx17 Clone ORF

(SEQ ID NO: 5)

CTGAGCCTGGAGGCCCCAACCGTGGGGAAAGGACAAGCCCCAGGCATCGAGGAGACAGATGGCGAGCTGACAGCAGCCCCCACACCTGAGCAGCCAGAAC
GAGGCGTCCACTTTGTCACAACAGCCCCCACCTTGAAGCTGCTCAACCACCACCCGCTGCTTGAGGAATTCCTACAAGAGGGGCTGGAAAAGGGAGATGAGG
AGTTGAGGCCAGCACTGCCCTTCCAGCCTGACCCACCTGCACCCTTCACCCCAAGTCCCCTTCCCCGCCTGGCCAACCAGGACAGCCGCCCTGTCTTTACCAGC
CCCACTCCAGCCATGGCTGCGGTACCCACTCAGCCCCAGTCCAAGGAGGGACCCTGGAGTCCGGAGTCAGAGTCCCCTATGCTTCGAATCACAGCTCCCCTAC
CTCCAGGGCCCAGCATGGCAGTGCCCACCCTAGGCCCAGGGGAGATAGCCAGCACTACACCCCCCAGCAGAGCCTGGACACCAACCCAAGAGGGTCCTGGA
GACATGGGAAGGCCGTGGGTTGCAGAGGTTGTGTCCCAGGGCGCGGGGATCGGGATCCAGGGGACCATCACCTCCTCCACAGCTTCAGGAGATGATGAGG
AGACCACCACTACCACCACCATCATCACCACCACCATCACCACAGTCCAGACACCAGGCCCTTGTAGCTGGAATTTCTCAGGCCCAGAGGGCTCTCTGGACTCC
CCTACAGACCTCAGCTCCCCCACTGATGTTGGCCTGGACTGCTTCTTCTACATCTCTGTCTACCCTGGCTATGGCGTGGAAATCAAGGTCCAGAATATCAGCCT
CCGGGAAGGGGAGACAGTGACTGTGGAAGGCCTGGGGGGGCCCGACCCACTGCCCCTGGCCAACCAGTCTTTCCTGCTGCGGGGCCAAGTCATCCGCAGCC
CCACCCACCAAGCGGCCCTGAGGTTCCAGAGCCTCCCGCCACCGGCTGGCCCTGGCACCTTCCATTTCCATTACCAAGCCTATCTCCTGAGCTGCCACTTTCCCC
GTCGTCCAGCTTATGGAGATGTGACTGTCACCAGCCTCCACCCAGGGGGTAGTGCCCGCTTCCATTGTGCCACTGGCTACCAGCTGAAGGGCGCCAGGCATC
TCACCTGTCTCAATGCCACCCAGCCCTTCTGGGATTCAAAGGAGCCCGTCTGCATCGCTGCTTGCGGCGGAGTGATCCGCAATGCCACCACCGGCCGCATCGT
CTCTCCAGGCTTCCCGGGCAACTACAGCAACAACCTCACCTGTCACTGGCTGCTTGAGGCTCCTGAGGGCCAGCGGCTACACCTGCACTTTGAGAAGGTTTCC
CTGGCAGAGGATGATGACAGGCTCATCATTCGCAATGGGGACAACGTGGAGGCCCCACCAGTGTATGATTCCTATGAGGTGGAATACCTGCCCATTGAGGG
CCTGCTCAGCTCTGGCAAACACTTCTTTGTTGAGCTCAGTACTGACAGCAGCGGGGCAGCTGCAGGCATGGCCCTGCGCTATGAGGCCTTCCAGCAGGGCCA
TTGCTATGAGCCCTTTGTCAAATACGGTAACTTCAGCAGCAGCACACCCACCTACCCTGTGGGTACCACTGTGGAGTTCAGCTGCGACCCTGGCTACACCCTG
GAGCAGGGCTCCATCATCATCGAGTGTGTTGACCCCCACGACCCCCAGTGGAATGAGACAGAGCCAGCCTGCCGAGCCGTGTGCAGCGGGGAGATCACAGA
CTCGGCTGGCGTGGTACTCTCTCCCAACTGGCCAGAGCCCTACGGTCGTGGGCAGGATTGTATCTGGGGTGTGCATGTGGAAGAGGACAAGCGCATCATGCT
GGACATCCGAGTGCTGCGCATAGGCCCTGGTGATGTGCTTACCTTCTATGATGGGGATGACCTGACGGCCCGGGTTCTGGGCCAGTACTCAGGGCCCCGTAG
CCACTTCAAGCTCTTTACCTCCATGGCTGATGTCACCATTCAGTTCCAGTCGGACCCCGGGACCTCAGTGCTGGGCTACCAGCAGGGCTTCGTCATCCACTTCT
TTGAGGTGCCCCGCAATGACACATGTCCGGAGCTGCCTGAGATCCCCAATGGCTGGAAGAGCCCATCGCAGCCTGAGCTAGTGCACGGCACCGTGGTCACTT
ACCAGTGCTACCCTGGCTACCAGGTAGTGGGATCCAGTGTCCTCATGTGCCAGTGGGACCTAACTTGGAGTGAGGACCTGCCCTCATGCCAGAGGGTGACTT
CCTGCCACGATCCTGGAGATGTGGAGCACAGCCGACGCCTCATATCCAGCCCCAAGTTTCCCGTGGGGGCCACCGTGCAATATATCTGTGACCAGGGTTTTGT
GCTGATGGGCAGCTCCATCCTCACCTGCCATGATCGCCAGGCTGGCAGCCCCAAGTGGAGTGACCGGGCCCCTAAATGTCTCCTGGAACAGCTCAAGCCATG
CCATGGTCTCAGTGCCCCTGAGAATGGTGCCCGAAGTCCTGAGAAGCAGCTACACCCAGCAGGGGCCACCATCCACTTCTCGTGTGCCCCTGGCTATGTGCTG
AAGGGCCAGGCCAGCATCAAGTGTGTGCCTGGGCACCCCTCGCATTGGAGTGACCCCCCACCCATCTGTAGGGCTGCCTCTCTGGATGGGTTCTACAACAGT
CGCAGCCTGGATGTTGCCAAGGCACCTGCTGCCTCCAGCACCCTGGATGCTGCCCACATTGCAGCTGCCATCTTCTTGCCACTGGTGGCGATGGTGTTGTTGG
TAGGAGGTGTATACTTCTACTTCTCCAGGCTCCAGGGAAAAAGCTCCCTGCAGCTGCCCCGCCCCCGCCCCCGCCCCTACAACCGCATTACCATAGAGTCAGC
GTTTGACAATCCAACTTACGAGACTGGATCTCTTTCCTTTGCAGGAGACGAGAGAATA

FIG. 3A

> Translation of hSCRx17 clone ORF

(SEQ ID NO: 6)

LSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHHPLLEEFLQEGLEKGDE
ELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPESESPMLRIT
APLPPGPSMAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSST
ASGDDEETTTTTTIITTTITTVQTPGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVE
IKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRGQVIRSPTHQAALRFQSLPPPAGPGTFHFHY
QAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNATQPFWDSKEPVCIAA
CGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVE
APPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSST
PTYPVGTTVEFSCDPGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEP
YGRGQDCIWGVHVEEDKRIMLDIRVLRIGPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMAD
VTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGWKSPSQPELVHGTVVTYQCYPGY
QVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYICDQGFVL
MGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGY
VLKGQASIKCVPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVA
MVLLVGGVYFYFSRLQGKSSLQLPRPRPRPYNRITIESAFDNPTYETGSLSFAGDERI

FIG. 3B

Alignment of SEZ6 Variants

```
                    1                                                                                80
 hSEZ6 BC146292     (1) MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHHPLLEEFLQEG
hSEZ6 NP_849191     (1) MRPVALLLLPSLLALLAHGLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLNHHPLLEEFLQEG
                    81                                                                               160
 hSEZ6 BC146292    (81) LEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPESESPMLRITAPLPPGPS
hSEZ6 NP_849191    (81) LEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPESESPMLRITAPLPPGPS
                   161                                                                               240
 hSEZ6 BC146292   (161) MAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSSTASGDDEETTTTTTIITTTTITTVQT
hSEZ6 NP_849191   (161) MAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSSTASGDDEETTTTTTIITTTTITTVQT
                   241                                                                               320
 hSEZ6 BC146292   (241) PGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRG
hSEZ6 NP_849191   (241) PGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETVTVEGLGGPDPLPLANQSFLLRG
                   321                                                                               400
 hSEZ6 BC146292   (321) QVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNA
hSEZ6 NP_849191   (321) QVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNA
                   401          ** *                                                                 480
 hSEZ6 BC146292   (401) TQPFWDSKEPVCIGECPGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVE
hSEZ6 NP_849191   (401) TQPFWDSKEPVCIAACGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLIIRNGDNVE
                   481                                                                               560
 hSEZ6 BC146292   (481) APPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSCD
hSEZ6 NP_849191   (481) APPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSCD
                   561                                                                               640
 hSEZ6 BC146292   (561) PGYTLEQGSIILECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRI
hSEZ6 NP_849191   (561) PGYTLEQGSIILECVDPHDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRI
                   641                                                                               720
 hSEZ6 BC146292   (641) GPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGW
hSEZ6 NP_849191   (641) GPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMADVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGW
                   721                                                                               800
 hSEZ6 BC146292   (721) KSPSQPELVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFFVGATVQYICD
hSEZ6 NP_849191   (721) KSPSQPELVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFFVGATVQYICD
                   801                                                                               880
 hSEZ6 BC146292   (801) QGFVLMGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKC
hSEZ6 NP_849191   (801) QGFVLMGSSILTCHDRQAGSPKWSDRAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKC
                   881                                                                               960
 hSEZ6 BC146292   (881) VPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLP
hSEZ6 NP_849191   (881) VPGHPSHWSDPPPICRAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVYFYFSRLQGKSSLQLP
                   961                                994
 hSEZ6 BC146292   (961) RPRPRPYNRITIESAFDNPTYETGSLSFAGDERI          (SEQ ID NO: 7)
hSEZ6 NP_849191   (961) RPRPRPYNRITIESAFDNPTYETGSLSFAGDERI          (SEQ ID NO: 3)
```

FIG. 3C

>hSCRx17-Fc ORF

(SEQ ID NO: 8)

ATGGAGACAGACACACTCCTGCTATGGGTACTGCTGCTCTGGGTTCCCGGGTCCACTGGTGAC**GGCGCGCCTGGATCC**CTGAGCCTGGAGGCCCCAACCGTGGGGAAAGG
ACAAGCCCCAGGCATCGAGGAGACAGATGGCGAGCTGACAGCAGCCCCCACACCTGAGCAGCCAGAACGAGGCGTCCACTTTGTCACAACAGCCCCCACCTTGAAGCTGCT
CAACCACCACCCGCTGCTTGAGGAATTCCTACAAGAGGGGCTGGAAAAGGGAGATGAGGAGTTGAGGCCAGCACTGCCCTTCCAGCCTGACCCACCTGCACCCTTCACCCC
AAGTCCCCTTCCCCGCCTGGCCAACCAGGACAGCCGCCCTGTCTTTACCAGCCCCACTCCAGCCATGGCTGCGGTACCCACTCAGCCCCAGTCCAAGGAGGGACCCTGGAGT
CCGGAGTCAGAGTCCCCTATGCTTCGAATCACAGCTCCCCTACCTCCAGGGCCCAGCATGGCAGTGCCCACCCTAGGCCCAGGGGAGATAGCCAGCACTACACCCCCCAGCA
GAGCCTGGACACCAACCCAAGAGGGTCCTGGAGACATGGGAAGGCCGTGGGTTGCAGAGGTTGTGTCCCAGGGCGCGGGGATCGGGATCCAGGGGACCATCACCTCCTCC
ACAGCTTCAGGAGATGATGAGGAGACCACCACTACCACCACCATCATCACCACCACCATCACCACAGTCCAGACACCAGGCCCTTGTAGCTGGAATTTCTCAGGCCCAGAGG
GCTCTCTGGACTCCCCTACAGACCTCAGCTCCCCCACTGATGTTGGCCTGGACTGCTTCTTCTACATCTCTGTCTACCCTGGCTATGGCGTGGAAATCAAGGTCCAGAATATCA
GCCTCCGGGAAGGGGAGACAGTGACTGTGGAAGGCCTGGGGGGGCCCGACCCACTGCCCCTGGCCAACCAGTCTTTCCTGCTGCGGGGCCAAGTCATCCGCAGCCCCACC
CACCAAGCGGCCCTGAGGTTCCAGAGCCTCCCGCCACCGGCTGGCCCTGGCACCTTCCATTTCCATTACCAAGCCTATCTCCTGAGCTGCCACTTTCCCCGTCGTCCAGCTTAT
GGAGATGTGACTGTCACCAGCCTCCACCCAGGGGGTAGTGCCCGCTTCCATTGTGCCACTGGCTACCAGCTGAAGGGCGCCAGGCATCTCACCTGTCTCAATGCCACCCAGC
CCTTCTGGGATTCAAAGGAGCCCGTCTGCATCGCTGCTTGCGGCGGAGTGATCCGCAATGCCACCACCGGCCGCATCGTCTCTCCAGGCTTCCCGGGCAACTACAGCAACAA
CCTCACCTGTCACTGGCTGCTTGAGGCTCCTGAGGGCCAGCGGCTACACCTGCACTTTGAGAAGGTTTCCCTGGCAGAGGATGATGACAGGCTCATCATTCGCAATGGGGAC
AACGTGGAGGCCCCACCAGTGTATGATTCCTATGAGGTGGAATACCTGCCCATTGAGGGCCTGCTCAGCTCTGGCAAACACTTCTTTGTTGAGCTCAGTACTGACAGCAGCG
GGGCAGCTGCAGGCATGGCCCTGCGCTATGAGGCCTTCCAGCAGGGCCATTGCTATGAGCCCTTTGTCAAATACGGTAACTTCAGCAGCAGCACACCCACCTACCCTGTGGG
TACCACTGTGGAGTTCAGCTGCGACCCTGGCTACACCCTGGAGCAGGGCTCCATCATCATCGAGTGTGTTGACCCCCACGACCCCCAGTGGAATGAGACAGAGCCAGCCTGC
CGAGCCGTGTGCAGCGGGGAGATCACAGACTCGGCTGGCGTGGTACTCTCTCCCAACTGGCCAGAGCCCTACGGTCGTGGGCAGGATTGTATCTGGGGTGTGCATGTGGA
AGAGGACAAGCGCATCATGCTGGACATCCGAGTGCTGCGCATAGGCCCTGGTGATGTGCTTACCTTCTATGATGGGGATGACCTGACGGCCCGGGTTCTGGGCCAGTACTC
AGGGCCCCGTAGCCACTTCAAGCTCTTTACCTCCATGGCTGATGTCACCATTCAGTTCCAGTCGGACCCCGGGACCTCAGTGCTGGGCTACCAGCAGGGCTTCGTCATCCACT
TCTTTGAGGTGCCCCGCAATGACACATGTCCGGAGCTGCCTGAGATCCCCAATGGCTGGAAGAGCCCATCGCAGCCTGAGCTAGTGCACGGCACCGTGGTCACTTACCAGT
GCTACCCTGGCTACCAGGTAGTGGGATCCAGTGTCCTCATGTGCCAGTGGGACCTAACTTGGAGTGAGGACCTGCCCTCATGCCAGAGGGTGACTTCCTGCCACGATCCTGG
AGATGTGGAGCACAGCCGACGCCTCATATCCAGCCCCAAGTTTCCCGTGGGGGCCACCGTGCAATATATCTGTGACCAGGGTTTTGTGCTGATGGGCAGCTCCATCCTCACC
TGCCATGATCGCCAGGCTGGCAGCCCCAAGTGGAGTGACCGGGCCCCTAAATGTCTCCTGGAACAGCTCAAGCCATGCCATGGTCTCAGTGCCCCTGAGAATGGTGCCCGA
AGTCCTGAGAAGCAGCTACACCCAGCAGGGGCCACCATCCACTTCTCGTGTGCCCCTGGCTATGTGCTGAAGGGCCAGGCCAGCATCAAGTGTGTGCCTGGGCACCCCTCG
CATTGGAGTGACCCCCCACCCATCTGTAGGGCTGCCTCTCTGGATGGGTTCTACAACAGTCGCAGCCTGGATGTTGCCAAGGCACCTGCTGCCTCCAGCACCCTGGATGCTG
CCCAC**CTGGCCGGCCACAGATCT**GTCGAGTGCCCACCGTGCCCAGCACCACCTGTGGCAGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCC
CGGACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCACGAAGACCCCGAGGTCCAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCC
ACGGGAGGAGCAGTTCAACAGCACGTTCCGTGTGGTCAGCGTCCTCACCGTTGTGCACCAGGACTGGCTGAACGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGCCT
CCCAGCCCCCATCGAGAAAACCATCTCCAAAACCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCAGGGAGGAGATGACCAAGAACCAGGTCAGCCT
GACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCATGCTGGACTCCGACG
GCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAA
GAGCCTCTCCCTGTCTCCGGGTTGA

FIG. 4A

>hSCRx17-Fc protein

(SEQ ID NO: 9)

METDTLLLWVLLLWVPGSTGDGAPGSLSLEAPTVGKGQAPGIEETDGELTAAPTPEQPERGVHFVTTAPTLKLLN
HHPLLEEFLQEGLEKGDEELRPALPFQPDPPAPFTPSPLPRLANQDSRPVFTSPTPAMAAVPTQPQSKEGPWSPES
ESPMLRITAPLPPGPSMAVPTLGPGEIASTTPPSRAWTPTQEGPGDMGRPWVAEVVSQGAGIGIQGTITSSTASG
DDEETTTTTTTITTTTTTTTVQTPGPCSWNFSGPEGSLDSPTDLSSPTDVGLDCFFYISVYPGYGVEIKVQNISLREGETV
TVEGLGGPDPLPLANQSFLLRGQVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAYLLSCHFPRRPAYGDVTVTSLH
PGGSARFHCATGYQLKGARHLTCLNATQPFWDSKEPVCIAACGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEA
PEGQRLHLHFEKVSLAEDDDRLIIRNGDNVEAPPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEA
FQQGHCYEPFVKYGNFSSSTPTYPVGTTVEFSCDPGYTLEQGSIIIECVDPHDPQWNETEPACRAVCSGEITDSAG
VVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRIGPGDVLTFYDGDDLTARVLGQYSGPRSHFKLFTSMA
DVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPELPEIPNGWKSPSQPELVHGTVVTYQCYPGYQVVGSSVLM
CQWDLTWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYICDQGFVLMGSSILTCHDRQAGSPKWSD
RAPKCLLEQLKPCHGLSAPENGARSPEKQLHPAGATIHFSCAPGYVLKGQASIKCVPGHPSHWSDPPPICRAASLD
GFYNSRSLDVAKAPAASSTLDAAHLAGHRSVECPPCPAPPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHED
PEVQFNWYVDGVEVHNAKTKPREEQFNSTFRVVSVLTVVHQDWLNGKEYKCKVSNKGLPAPIEKTISKTKGQPR
EPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPMLDSDGSFFLYSKLTVDKSRWQQ
GNVFSCSVMHEALHNHYTQKSLSLSPG

FIG. 4B

>cDNA sequence encoding mature murine SEZ6

(SEQ ID NO: 10)

CTCTCCTCAGAGGCTCCGATCACGGGGGAAGGTCATGCCACGGGCATCAGGGAGACGGATGGGGAGCTGACCGCAGCCCCTACACCTGAGCAGTCAGACC
GAGGCGTCCACTTCGTCACCACAGCCCCTACCCTCAAGCTGCTCAACCACCACCCACTTCTGGAAGAATTTCTTCAAGAGGGGCTAGAAAGAGAGGAAGCGC
CGCAGCCTGCACTGCCCTTCCAGCCGGACTCACCTACACACTTTACTCCAAGCCCCCTCCCCCGCCTCACCAACCAGGACAACCGCCCCGTCTTTACCAGTCCG
ACTCCAGCCGTGGCTGCAGCACCCACCCAGCCCCACTCCAGGGAGAAACCTTGGAACCTAGAATCCAAACCCCCTGAGCTTTCTATCACATCGTCCCTTCCTCC
AGGGCCGAGTATGGCAGTGCCCACACTGCTCCCAGAGGACAGACCCAGTACTACACCCCCTAGCCAAGCATGGACTCCAACTCAGGAGGGTCCTGGAGACA
TGGACAGACCTTGGGTTCCAGAGGTCATGTCTAAGACCACAGGGCTTGGTGTCGAGGGAACCATTGCCACCTCCACAGCTTCAGGGGATGACGAAGAGACC
ACTACCACCATCATTACCACTACTGTCACCACAGTTCAGCCACCAGGCCCCTGTAGCTGGAATTTCTCAGGCCCAGAGGGCTCTCTGGATTCCCCCACGGCCCC
CAGCTCACCCTCTGATGTTGGCCTGGACTGTTTCTACTATATCTCTGTCTACCCTGGATATGGAGTAGAGATCAAGGTGGAGAACATCAGCCTTCAGGAAGGG
GAGACCATCACCGTGGAGGGCCTGGGGGGCCCCGATCCACTGCCCTTGGCTAACCAGTCGTTCCTGCTGAGGGGCCAGGTCATCCGCAGCCCCACCCACCA
AGCAGCCCTGAGGTTCCAGAGCCTCCCGCTACCCGCTGGGCCTGGCACTTTCCATTTCCGCTACCAAGCCTATCTCCTGAGCTGCCACTTTCCCCGACGTCCAG
CGTATGGAGATGTGACTGTCACCAGTCTCCACCCAGGAGGCAGCGCCCACTTCCATTGTGCCACTGGCTACCAGCTCAAGGGTGCCAGGTTCCTCACCTGTCT
CAATGCCACCCAGCCCTTTTGGGATTCCCAAGAGCCTGTTTGCATTGCTGCTTGTGGTGGAGTGATTCGGAATGCCACCACTGGCCGCATTGTCTCTCCTGGC
TTCCCGGGGAACTACAGCAACAACCTCACCTGCCACTGGTTGCTAGAGGCTCCAGAGAGCCAGCGGCTGCACCTGCACTTTGAAAAGGTCTCCCTGGCAGAA
GACGACGACAGGCTCATCATCCGCAATGGAAATAACGTGGAGGCCCCGCCGGTGTACGACTCCTATGAGGTGGAATACCTGCCCATTGAGGGCCTGCTCAG
CTCTGGCAGACACTTCTTCGTGGAGTTCAGTACTGACAGCAGTGGGGCAGCTGCAGGCATGGCCCTGCGCTATGAGGCCTTCCAGCAAGGACATTGCTATGA
GCCCTTTGTCAAATACGGCAACTTCAGCAGCAGTGCACCGTCCTACCCTGTGGGTACAACTGTGGAGTTCAGCTGTGACCCTGGCTACACCCTGGAGCAGGG
CTCCATCATCATCGAATGCGTCGACCTCCACGACCCCCAGTGGAATGAGACAGAGCCAGCCTGCCGAGCCGTGTGCAGCGGGGAGATCACAGACTCTGCAG
GCGTGGTGCTCTCTCCAAACTGGCCGGAGCCTTATGGCCGAGGGCAGGACTGCATCTGGGGTGTGCATGTGGAGGAGGACAAGCGCATCATGCTGGACAT
CCGAGTGCTGCGCATAGGCTCTGGGGATGTACTGACCTTCTACGATGGGGATGACCTCACAGCCCGGGTCCTGGGCCAATACTCAGGGCCCCGTGGCCACTT
CAAGCTCTTTACCTCCATGGCCGATGTCACCATCCAGTTCCAGTCAGACCCTGGGACCTCGGCGCTGGGTTACCAGCAAGGATTTGTCATCCACTTCTTTGAG
GTTCCCCGCAACGACACATGTCCAGAGCTACCCGAGATCCCCAACGGCTGGAAGAACCCATCACAGCCTGAGCTGGTGCACGGCACGGTGGTCACCTATCAG
TGCTACCCTGGTTACCAGGTGGTGGGATCCAGTATTCTCATGTGCCAGTGGGACCTAAGCTGGAGTGAGGACCTGCCTTCATGCCAGAGAGTGACATCTTGC
CATGACCCAGGGGATGTGGAGCACAGCCGACGCCTCATATCCAGCCCCAAGTTTCCCGTGGGAGCAACTGTGCAATATGTCTGTGACCAGGGTTTTGTGCTG
ACGGGGAGTGCCATTCTCACCTGCCATGATCGGCAAGCAGGCAGTCCCAAGTGGAGTGACAGGGCCCCCAAGTGTCTCTTGGAACAATTCAAGCCGTGCCA
TGGCCTCAGCGCCCCGGAGAATGGTGCCCGCAGCCCTGAGAAGCGGCTTCACCCAGCAGGGGCCACCATCCACTTCTCCTGTGCCCCTGGTTATGTGCTGAA
GGGCCAGGCCAGCATCAAATGCGTGCCTGGACACCCCTCGCATTGGAGTGACCCACCACCCATCTGTAGGGCTGCCTCTCTGGATGGGTTCTACAACGGCCG
TAGCCTGGATGTTGCCAAGGCACCTGCCGCCTCCAGTGCCCTGGACGCTGCTCACCTGGCTGCTGCCATCTTCCTACCATTGGTGGCCATGGTGTTGCTGGTG
GGAGGAGTGTACCTCTATTTTTCCAGATTCCAGGGGAAAAGTCCCCTGCAACTTCCCCGAACTCATCCTCGCCCCTATAACCGCATCACGGTAGAGTCAGCAT
TTGACAATCCAACTTATGAGACTGGATCTCTTTCCTTTGCAGGAGACGAGAGAATATGA

FIG. 5A

>Translation of mSCRx17 clone ORF

(SEQ ID NO: 11)

LSSEAPITGEGHATGIRETDGELTAAPTPEQSDRGVHFVTTAPTLKLLNHHPLLEEFLQEGLEREEAPQPALPFQPDSPTHFT
PSPLPRLTNQDNRPVFTSPTPAVAAAPTQPHSREKPWNLESKPPELSITSSLPPGPSMAVPTLLPEDRPSTTPPSQAWTPT
QEGPGDMDRPWVPEVMSKTTGLGVEGTIATSTASGDDEETTTTIITTVTTVQPPGPCSWNFSGPEGSLDSPTAPSSPSD
VGLDCFYYISVYPGYGVEIKVENISLQEGETITVEGLGGPDPLPLANQSFLLRGQVIRSPTHQAALRFQSLPLPAGPGTFHFR
YQAYLLSCHFPRRPAYGDVTVTSLHPGGSAHFHCATGYQLKGARFLTCLNATQPFWDSQEPVCIAACGGVIRMATTGRIVS
PGFPGNYSNNLTCHWLLEAPESQRLHLHFEKVSLAEDDDRLIIRNGNNVEAPPVYDSYEVEYLPIEGLLSSGRHFFVEFSTD
SSGAAAGMALRYEAFQQGHCYEPFVKYGNFSSSAPSYPVGTTVEFSCDPGYTLEQGSIIIECVDLHDPQWNETEPACRAV
CSGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDIRVLRIGSGDVLTFYDGDDLTARVLGQYSGPRGHFKLF
TSMADVTIQFQSDPGTSALGYQQGFVIHFFEVPRNDTCPELPEIPNGWKNPSQPELVHGTVVTYQCYPGYQVVGSSILMC
QWDLSWSEDLPSCQRVTSCHDPGDVEHSRRLISSPKFPVGATVQYVCDQGFVLTGSAILTCHDRQAGSPKWSDRAPKCLL
EQFKPCHGLSAPENGARSPEKRLHPAGATIHFSCAPGYVLKGQASIKCVPGHPSHWSDPPPICRAASLDGFYNGRSLDVAK
APAASSALDAAHLAAAIFLPLVAMVLLVGGVVLYFSRFQGKSPLQLPRTHPRPYNRITVESAFDNPTYE TGSLSFAGDERI

FIG. 5B

>cDNA sequence of rSCRx17 clone ORF

(SEQ ID NO: 12)

ctctcctcaagagctccaatcacaggaaaagtcaagccacgagcatcaggaaatggaggagctgaccacagccctcacctgacagtcagacgaagcctccacttcgtcaccac
agcccctaccctcaagctactcaaccaccacccacttctgaagaaatttcttcaagaggactaaggaagaaggaagctccaagccgccactgccttccagccagaactcacctacac
cctttactccaagccccctcccctcccgcctcaccaacaggacaaccgcccttgtctttaccagtccgcacgccgctgtactccgccgcacccacctactccagcaggaaaaaaaccctggaacc
cagagtcagaagccccgaagcttacatcacatctcccctcccctcaggccgagtatggcagtgcccacatgcccacccacaggacagaccccagcactacacccccccagccaagcatggact
ccaacccagaggagtcctgaagacatgagacagacctggttccagaagatcatgtctaagaggcaccattgcacctccacagcttcagggatgacgaaga
gaccaccaccaccatcattaccaccgtcaccaatccgccaagaccctatagctggaatttctcagtcccaagactctgaattccctgcgatcccccagcatcccctcgatg
ttggcctggactgtcctactacatcatctgtctaccctgaatgaaaacatcagccttcaggaaaggaagaaccataaccatgaaaggacctgggggggcctgacc
cactaccttggctaccaggatctttcctgctgaggaggccaggtcatccgccagccccaccaccaggcagccctgaggttccaaagcctttccaatttccttgactttccact
accaagcctatctcctgagctcaccacttccttctggcatccagcctccacccaggagccagccccgcttccactgtgccactggctacagctgaaaggat
gccagattcctcacctatctcaatgccaccccaccctttggaattcccaagagcctgtctgcattgctgctggaggatgattccaaatgccaccaccaactgggccattatctctcctgcctttcc
cggaactacagcaacaacctcacctaccctgcctgctacaaagccccgagaaccagccgcctcacctccctgcagaaagaatgcacaagcagcctcatcatccgcta
acgggaataacgtgaaggcccccaccgatgtatgcacttccgaggtggaatcctcctcgatgaccaccttcttctgtggagttcagtactgcagcagcgggcc
aaccacaggcatgcgcactgcctatgaggccttccagcaaggacattgctatgaccctttgtcaaatacgtaacttcagcagccgccgtcctacctatctgaaatacgactatggagttc
agctgtgacctgagctacacctgaagcaggttccatcatcatcgaatgcgtcgacctccgtgaccccagtgaaatgaagacaagaaccagctaccgtgaccatacaccaggaaatcac
agactgcagcgtggtgctctccaaactgccgaagccttatgccgaagcagcgtacticatctgaggtgtgcatgtgaagaggacaagcgcatcatgctgcgaatccgctgcg
cataggtctgggagtgctacgacctttctacgatgaggatgacctgaagccccgtgtgccaatactagaggccccctgccaccatttcaagctctttacctccatggctatctcaccattc
agttccagtcagaccctgaggacgtcgagcactgagttgtcatccacttctttgagtgccccgcaatgacacatgtccagaagctttccgagatcccaacgagctgaaaaa
cccatcacagcctgagctgtgtcatgagcacgtgtgtcacctactcgattaccgatgtgagaatccagtattctcatgtgccagtgaggctgagatgaggacctgaccct
catgccagaagtgacatctgccatgaccgaggatgtgagcacagccgacgccctcatatccagccctcaagtttcctgtgaccagtgctgaccaggtttgtgtgctc
acgatgtacgccatcctttacttgccatgatcgtcaagcgagcagtcccaatgagtgtacagagccccccaagtgtctcttgaacagttcaaaccatgtcatgcccctgaaatg
gtgcccgcacccctgagaagagctccacccagcagcgtccttcctgatgccttgatgctgactgaaggccagccagcatcaaatgcgtgctgcttgacacccctcacattg
gaatgatcctccacccatctataagctgcttctctgtgatgagttctacaacgacctagccttgccaagccacctgccacctccagtgaatgctgccacatggcagctgcca
tctttctaccattggtggccatggtgttgctggtgggaggagtgtacctctatttctccagactccagggaaaaagtcctctgcagcttcccggaactcatcctcgccctataaccgtatcacggt
agagtcagcattgacaatccaacttatgagaccggatctctttccttttgcaggagacgagagaata

FIG. 5C

>Translation of rSCRx17 clone ORF

(SEQ ID NO: 13)

LSSEAPITGEGQATGIREMDGELTAAPTPEQSDRGVHFVTTAPTLKLLNHHPLLEEFLQEGLEGREEAPRPALPFQPDSPTPFTPS
PLPRLTNQDNRPVFTSPTPAVAAAPTQPHSRKKPWNPESEPPELYITSPLPPGPSMAVPTLHPEDRPSTTPPSQAWTPTQEGPG
DMGRPWVPEIMSKTTGLGIEGTIATSTASGDDEETTTTTIITTVTTIQPPGPCSWNFSGPEGSLDSPAVPSVPSDVGLDCLYYISV
YPGYGVEIKVKNISLQEGETITVEGLGGPDPLPLANQSFLLRGQVIRSPTHQAAVRFQSLPLPAGPGTFHFHYQAYLLSCHFPRRP
AYGDVTVTSLHPGGSARFHCATGYQLKGARFLTCLNATQPFWDSQEPVCIAACGGVIRNATTGRIVSPGFPGNYSNNLTCHWL
LEAPESQRLHLHFEKVSLAEDDDRLIIRNGNNVEAPPVYDSYEVEYLPIEGLLSSGRHFFVEFSTDSSGAAAGMALRYEAFQQGH
CYEPFVKYGNFSSSAPSYPVGTTVEFSCDPGYTLEQGSIIIECVDLRDPQWNETEPACRAVCSGEITDSAGVVLSPNWPEPYGRG
QDCIWGVHVEEDKRIMLDIRVLRIGSGDVLTFYDGDDLTARVLGQYSGPRGHFKLFTSMADVTIQFQSDPGTSALGYQQGFVI
HFFEVPRNDTCPELPEIPNGWKNPSQPELVHGTVVTYQCYPGYQVVGSSILMCQWDLSWSEDLPSCQRVTSCHDPGDVEHS
RRLISSLKFPVGATVQYICDQGFVLTGSAILTCHDRQAGSPKWSDRAPKCLLEQFKPCHGLSAPENGARSPEKRLHPAGATIHFSC
APGYVLKGQASIKCVPGHPSHWSDPPPICRAASLDGFYNGRSLDVAKAPATSSALDAAHMAAAIFLPLVAMVLLVGGVYLYFSR
LQGKSPLQLPGTHPRPYNRITVESAFDNPTYETGSLSFAGDERI

FIG. 5D

>cDNA sequence of cSCRx17 clone ORF

(SEQ ID NO: 14)

atggagacagacacctcctgctatgggtactgctctgggttccaggttccactggtgacggcgccgccactcagcgaagctcccacaatgggcaagggacaggcccccgggaattgaa
agaaccgatgccgaactcaccgctaccctaccctcaccgaaagggagtgcacttgtgaccaccgctcccaccctgaagctgctcatcaccaccccctcctgaaggaatttct
gcaggaaggcctgggaaaaaggcgcagcgaactcagaccgccctgcccttcaaccgagccctcctacccctttacacctagcccctcctccgtagctgaccaaccaagacttccagaacctgt
gttcaccgcccctacacctgctacagctgccgtcctcccaacctcaatccaaggagggaccttgagccgcgagcgagcgagcctccctgctgagaatcacagctcttctcctcctgccctt
ccatggctgtcccacactcggacctgcgcaaaggccgcacacacccctcctcagagctgaccctacacaagaggccctgcgcacatgggaagccttgggtcctgaagtcgtg
agccaagccgccgtcatcgaaatcaccgtccaactccagcgcgaagacgatgaggaaacaccaccaccaaccaccatcaccaccacaatcacaacagtccgagcc
cccgaccctttgcagctgaaattttccgaccctgaagaatcccctgaatccccctcctgacgtgaccctgactttcttctatatcctgatctacgaccct
cgaaatcaaagtccagaacatctccctgaggaggcgaaacagtcaccgtggaaggacgcgccgaccctcctgccctcgccaaccaatccttcctcctcaaggccaatgattag
atccccacacatcaagctcctcgagttccaaagcctcctcccccccgctggaccccgaacctttcactccaccctacctaccgcaggccgcctcgctatgg
agatgtcacagtcacctcctgcatcctagcggctccgctagattccactgcgctaccgaagtaccaagaaatgtgagccccgggcttcctttgaacctactccaacaacctgacatgccactgctgctgaa
aagaggcccgtctgcattgccgctgcgaggcgtcatcagaaatgccaccaccgccgcagaaatcgtgagccccgggcttcctttgaacctactccaacaacctgacatgccactgctgctgaa
gctcctgaggccagaagactgcatctgcacttcgaggaggtcagcctgagcgaaagatgagcacagactgaagaacgcgacaacgtgagagctcccccccgctatgattcctacgag
gtcgattacctcccccatcgaggagactgtgtcctcctgcgacgaacattttttcgtgagctgttccacagattccagcgaagctgcccgaatgagcttcaacagggcca
ctgttacagccctttgtgaagtacgaggcaacttctccgctcctacctcccgctgaggcacaaccgatcgaattagctgcgaccctgagatacacactgcgagcaggcctccatcatcg
agtatgtcgacccccacgcccccaatgaagacgagcccgctgtatgaggccatgtatgccgccgagatgagtctctccctcaattgagcctgaaccctaca
gcagaggacaagattgtatttgaggcgtccatgtcgaggaggacaaggattatgctgacgtgaggtgctgaggattgaccttgcgagcagtgcttcacattctatgcgcgacgatctca
ccgccgagtcctgggacaatactccgcccctcaccgcctcaagctgctgactgaccatccgatcctgaacatccgtgctgaaatacagcgagg
cttcgtcatccacttcttcgagtcccgaagcgcacacctgcccgaactgcccgaggaattcccaacgctgatctgtgcacgcgcaccgtcatcacctaccaat
gctaccctgagataccaagtcatcgagcacgactactgtatgcaatgaggaacctcacctgaagcaggatgcacctcctgccaggatgccacctccctgcgcatatgcgaac
actccaggaggctgattagctcccccaagttcccccaagttcctctgtgcgaccaggcttttgtgctgaccgaaacagcatcccacatgcccacgcaaggcaagctgcgatc
cccaagtgtccgataggcccccaaatgcctctgtgaaacagctgaaagcctgcgtcatgccttgccctagaagcccgaaaagaggctccaccctgccgaagcca
ccatccacttttcctgtgtccccgaatacgtgctgaaggccaggcctccattaagtgcgtgccgaacatccttccactgctccgaccccctcccatctgtaaagccgcctcctcctggacgaat
tctataacagcagaaagcctgagcgtcgctaagccccctgctgcttcctcccaccctgaggatcacagtcgagagcgccttcgacaaccccacatacgagacaggatcc
acttctacttctccaggctgcgagggaaagagctccctgcaactgcctaggacaaggacccaggccctacaataggatcacagtcgagagcgccttcgacaaccccacatacgagacaggatcc
ctgagctttgccggagacgagagaagaatt

FIG. 5E

>Translation of cSCRx17 clone ORF

(SEQ ID NO: 15)

METDTLLLWVLLLWVPGSTGDGAPLSSEAPTMGKGQAPGIEETDGELTAAPTPEQPER
GVHFVTTAPTLKLLNHHPLLEEFLQEGLEKGDEELRPALPFQPDPPTPFTPSPLPRLANQ
DSRPVFTSPTPATAAVPTQPQSKEGPWSLESEPPVLRITAPLPPGPSMAVPTLGPGERPS
TTPPSRAWTPTQEGPGDMGRPWVPEVVSQGAGIGIQGTIASSTASGDDEETTTTTTTTTT
TITTVQTPGPCSWNFSGPEGSLDSPTDLSSPPDVGLDCFFYISVYPGYGVEIKVQNISLR
EGETVTVEGLGGPAPLPLANQSFLLRGQVIRSPTHQAALRFQSLPPPAGPGTFHFHYQAY
LLSCHFPHRPAYGDVTVTSLHPGGSARFHCATGYQLKGARHLTCLNATQPFWDSKEPVCI
AACGGVIRNATTGRIVSPGFPGNYSNNLTCHWLLEAPEGQRLHLHFEKVSLAEDDDRLII
RNGDNVEAPPVYDSYEVEYLPIEGLLSSGKHFFVELSTDSSGAAAGMALRYEAFQQGHCY
EPFVKYGNFSSSAPTYPVGTTVEFSCDPGYTLEQGSIIIECVDPHDPQWNETEPACRAVC
SGEITDSAGVVLSPNWPEPYGRGQDCIWGVHVEEDKRIMLDVRVLRIGPGDVLTFYDGDD
LTARVLGQYSGPHSHFKLFTSMADVTIQFQSDPGTSVLGYQQGFVIHFFEVPRNDTCPEL
PEIPNGWKSPSQPDLVHGTVVTYQCYPGYQVVGSSVLMCQWDLTWSEDLPSCQRVTSCHD
PGDVEHSRRLISSPKFPVGATVQYICDQGFVLTGTSILTCHDRQAGSPKWSDRAPKCLLE
QLKPCHGLSAPENGARSPEKRLHPAGATIHFSCAPGYVLKGQASIKCVPGHPSHWSDPPP
ICKAASLDGFYNSRSLDVAKAPAASSTLDAAHIAAAIFLPLVAMVLLVGGVVYFYFSRLQG
KSSLQLPRTRPRPYNRITVESAFDNPTYETGSLSFAGDERI

FIG. 5F

>cDNA sequence of human SEZ6L ECD

(SEQ ID NO: 16)

ctcaggaggatgctctgccctgaggagatacttcccctcctgaccttatctgctgcccagcgaactcctgagaggaggatcccccggaaaggaggcatcccaagaagaggatcacagct
ccccctgactccagccaggagcactgaggctgctgaggaaactgagtcctcgacgaaacagccccttcgccatcacgatattcctgccctgccctctcctcccgaggaagctaggcctaaac
acgccctcccccctaaaaggaggctgcctcccttcaagcaggtcaattcgtccaggaagcagctcaggccacctccgctgctacagtccaaaggactggaatcccagcctgccagc
caggactcgatctgctctcagcactccacagcaaaaaacctgaccttcctgccgcgatcctgaccttattgtgccagcgaagtccctctgtgctgctgcacagcaggaaggaatcgct
gtcccaccacacacccgctcctccagatcagcccttatgtcgctcatacactgcttcaggcctgagcctgtgaccttgcgaacctggacctgaacatgcctcaggaggctcctca
ggaggacaccagccctatggccctgatggataaggccgaaatgaactgaccgaaagccaggaaagccaggaaccaccagcacaatcatcaccaccaccatcatcaccac
cgaacaggcccccgctctgtgttccgtgttcctttccaacccccgaggctacattgcagcgcattaccccctgctcctctcaacaacttcctcgagtccacctacaatgtgaccgtgtacac
csgctacgaggtcgaactccaggtgaagtccgtgaacctctccgatgagcgctgctccattaggggctgatggccctacaatccctgctctgtcctgtaatttcccaggaggaccc
cagtgatgagtcccccaccaacacaccatctccgtctacttcaggaccttcaaggaacttccaactgcattaccaggcctcatgtcctgtcctgtaatttcccaggaggaccc
gacccggagacgtcaccgtctatggatctgcactccgaggcgtggcccacttcatttcacctcgactacgagtccgaggcccaagatgctgacatgcatcaacgacaaacctcact
ggtccagccaggaggcctatctgtagccgtgcgagccgtgcacaatgctacaattggcagagtgctcagccttccacctgaaaacaccaacgagctcccagctctgcatctgcac
aatcgaggccccgaagccaaagcctgcacttgaggagctcctgctccacgacaaagacaggatgaccgtccgccagaccaataagtccgccctcctctatgacagcc
tgcagacagagtccgtcctttgaaggcctgctgcgaggcaataccatccgaccaagccagggctgctagcaccttcaacattaggtttgaggctttcgaaaag
ggcactgctacgagccctatattcagaatggcaatttcacaacctcgaccccacctacaatatgcgcaatttactgcgacctgcgagcagggacctgcca
tcatcgaatgcatcaacgtcagggaccctactgggaacgcacagaacctctgtatgaggctatgtgcgaggcgcaactgagcgctgctctcccctaactggcccgaac
cctatgtgaggggcgaagattgcatctgaggagatccacgtcgccgaggaaaaaaggatctttctgaacatcctcgaccatctacgacggaatga
ggtcatgcccccacattctgggccagtatctcggaaactccgcccccaaaagctctacttcctcaccccccgacctacaatccaattccacgcatcctgctgccctcatctttgcaaggggac
aaggctttatcatgaattacatcgaggtcagcgaaaacgcgacagctgctccgacctgctggatccagaacgatgaaaccaccttccacaccgaacctcgactcatcaca
taccagtgcgaccccgaataccgacatgtcgcctccgatacccgacatgcgagctccgacccccccttttgtgaagaatcatgtactacaccgaccccgccgaag
tcgatctatgcaccagggctcatcgacgatctgtgctgctgcgcacaaccatcaatacacctgtaaccccgaattcgtgctctcgaaggatcctcctactcacctgttacagcagggaaacc
gccaccccattttgacatccgatgctgcgatgctccgaagaagcctgcctgccgatcctgccgcctgccgcaggaacggataccaagttctgtacaaaaggctgtacctcccgccgcg
agtcctgcaccttcatgtgctacgaggattcgagctcatgtgccgaagtcatccttcgccagccctcccactgggaccgcgcctctcccgctctgtaaggtcaatcaggattcc
ttcgagcacgctctgcgaaatcgctgaggctgccgccgagacaagccttgcgaggccgcc

FIG. 5G

>human SEZ6L ECD protein

(SEQ ID NO: 17)

METDTLLLWVLLLWVPGSTGDHGAPLERDALPEGDASPLGPYLLPSGAPERGSPGKEHPEERVVT
APPSSSQSAEVLGELVLDGTAPSAHHDIPALSPLLPEEARPKHALPPKKKLPSLKQVNSARKQLRPK
ATSAATVQRAGSQPASQGLDLLSSSTEKPGPPGDPDPIVASEEASEVPLWLDRKESAVPTTPAPLQI
SPFTSQPYVAHTLPQRPEPGEPGPDMAQEAPQEDTSPMALMDKGENELTGSASEESQETTTSTII
TTTVITTEQAPALCSVSFSNPEGYIDSSDYPLLPLNNFLECTYNVTVYTGYGVELQVKSVNLSDGELL
SIRGVDGPTLTVLANQTLLVEGQVIRSPTNTISVYFRTFQDDGLGTFQLHYQAFMLSCNFPRRPDS
GDVTVMDLHSGGVAHFHCHLGYELQGAKMLTCINASKPHWSSQEPICSAPCGGAVHNATIGRV
LSPSYPENTNGSQFCIWTIEAPEGQKLHLHFERLLLHDKDRMTVHSGQTNKSALLYDSLQTESVPF
EGLLSEGNTIRIEFTSDQARAASTFNIRFEAFEKGHCYEPYIQNGNFTTSDPTYNIGTIVEFTCDPGH
SLEQGPAIIECINVRDPYWNDTEPLCRAMCGGELSAVAGVVLSPNWPEPYVEGEDCIWKIHVGEE
KRIFLDIQFLNLSNSDILTIYDGDEVMPHILGQYLGNSGPQKLYSSTPDLTIQFHSDPAGLIFGKGQG
FIMNYIEVSRNDSCSDLPEIQNGWKTTSHTELVRGARITYQCDPGYDIVGSDTLTCQWDLSWSSD
PPFCEKIMYCTDPGEVDHSTRLISDPVLLVGTTIQYTCNPGFVLEGSSLLTCYSRETGTPIWTSRLPH
CVSEESLACDNPGLPENGYQILYKRLYLPGESLTFMCYEGFELMGEVTIRCILGQPSHWNGPLPVC
KVNQDSFEHALEVAEAAAETSLEGGLAGHHHHHHHHH

FIG. 5H

>cDNA sequence of human SEZ6L2 ECD

(SEQ ID NO: 18)

ctgcctctcaaagaggaagagattctccccgagcccggatccgagacacccacagtggcttccgaagccctcgctgaactgctgcacggagccctcctgagaaggggacctgaaatgggcta
tctccctggctccgacagagatcccacactcgccacacctcctgctggacagaccctcgctgtgccttccctgcccagagccacagaacccggaacaggccctctcacaacagctgtgacccct
aacggcgtcagaggagctggacctacagcccctgagctgctgacacctcctcctggcacaaccgctcctcctcctccttcccctgctagccctggacccccctctcggacctgaaggaggcgagg
aggagacaaccaccaccattattaccaccaccaccgtgacaaccacagtgaccagccctgtcctgtgcaacaacaacatcagcgaaggcgaaggctatgtggaatcccctgacctgggctcc
cctgtgtccagaacactcggcctcctggattgcacatactccattcacgtgtaccccggctacggaatcgagattcaggtgcagaccctgaatctgtcccaggaggaggaactgctggtgctgg
ctggcggaggaagccctggcctcgctcctagactcctcgctaactcctccatgctcggcgaaggccaggtcctcagatcccctaccaacaggctgctcctgcacttccagagccccagagtgcc
tagaggaggcggcttcaggattcactaccaggcctatctcctgagctgtggattccctcccagacccgctcatggcgatgtctccgtcaccgacctccaccccggaggaacagccaccttccact
gtgattccggataccagctgcaaggcgaggagaccctgatttgcctcaatggcaccaggcccagctggaacggagagacacctagctgcatggctagctgcggcggaaccatccataatgcc
accctcggcaggatcgtcagccctgaacctggcggagctgtgggacctaacctcacatgcagatgggtgatcgaagctgctgaaggcaggagactccacctccacttcgagagggtgtccctg
gacgaggacaacgacaggctcatggtcagaagcggcggaagccctctcagccctgtgatttacgacagcgacatggacgatgtgcctgagaggggcctcatctccgatgcccaaagcctgta
cgtggaactcctctccgagacccccgctaacccccctcctcctgagcctcagattcgaggccttcgaggaggacagatgtttcgctccttttctggcccatggcaacgtgaccacaaccgaccccg
agtacagacccggagctctggctaccttcagctgtctgcctggctacgccctcgaacctcccggacctcctaatgccatcgaatgtgtggatcccaccgaaccccattggaacgacaccgagcc
cgcttgtaaggctatgtgcggcggagaactcagcgaacctgccggagtggtcctctcccctgattggccccagagctattcccccggacaagactgtgtctgggcgtgcacgtccaggagga
aaagaggatcctcctccaggtggagattctgaacgtcagagagggagacatgctgaccctgttcgacggagacggaccttccgccagagtcctcgctcagctgagaggccctcagcccagaa
ggagactgctcagctccggccccgatctgacactccagtttcaggcccccccctggcccccctaatcctggcctgggacagggcttcgtgctccacttcaaggaggtccccaggaatgatacatg
ccccgaactgcctcctcccgagtggggatggaggacagcttcccatggcgacctgatcaggggaaccgtgctgacatatcagtgtgaacccggctacgagctgctgggaagcgatatcctgac
ctgtcagtgggatctctcctggagcgctgctccccctgcctgtcagaaaatcatgacctgcgctgaccctggagagatcgctaacggccacaggaccgcttccgacgctggatttcccgtgggct
cccacgtgcaatacaggtgcctccccggatactccctcgaaggcgctgccatgctgacatgctacagcagggacaccggcacacccaagtggtccgacagggtgcccaaatgtgctctgaagt
acgagccctgtctcaatcccggagtgcccgagaacggataccagaccctgtacaagcaccactatcaggccggcgaatccctgagattcttctgctacgagggcttcgagctcatcggcgagg
tgacaattacctgtgtgcccggccatccttcccagtggaccagccagcccccctctctgtaaggtcgcctacgaagagctgctcgacaataggaagctggaggtcacccagaccaccgacccttc
cagacaactggaaggcggc

FIG. 5I

>human SEZ6L2 ECD protein

(SEQ ID NO: 19)

METDTLLLWVLLLWVPGSTGDGAPLPLKEEEILPEPGSETPTVASEALAELLHGALLRRGPEMGYL
PGSDRDPTLATPPAGQTLAVPSLPRATEPGTGPLTTAVTPNGVRGAGPTAPELLTPPPGTTAPPPPS
PASPGPPLGPEGGEETTTTITTTTVTTTVTSPVLCNNNISEGEGYVESPDLGSPVSRTLGLLDCTY
SIHVYPGYGIEIQVQTLNLSQEEELLVLAGGGSPGLAPRLLANSSMLGEGQVLRSPTNRLLLHFQSP
RVPRGGGFRIHYQAYLLSCGFPPRPAHGDVSVTDLHPGGTATFHCDSGYQLQGEETLICLNGTRPS
WNGETPSCMASCGGTIHNATLGRIVSPEPGGAVGPNLTCRWVIEAAEGRRLHLHFERVSLDEDN
DRLMVRSGGSPLSPVIYDSDMDDVPERGLISDAQSLYVELLSETPANPLLLSLRFEAFEEDRCFAPF
LAHGNVTTTDPEYRPGALATFSCLPGYALEPPGPPNAIECVDPTEPHWNDTEPACKAMCGGELSE
PAGVVLSPDWPQSYSPGQDCVWGVHVQEEKRILLQVEILNVREGDMLTLFDGDGPSARVLAQL
RGPQPRRRLLSSGPDLTLQFQAPPGPPNPGLGQGFVLHFKEVPRNDTCPELPPPEWGWRTASH
GDLIRGTVLTYQCEPGYELLGSDILTCQWDLSWSAAPPACQKIMTCADPGEIANGHRTASDAGFP
VGSHVQYRCLPGYSLEGAAMLTCYSRDTGTPKWSDRVPKCALKYEPCLNPGVPENGYQTLYKHH
YQAGESLRFFCYEGFELIGEVTITCVPGHPSQWTSQPPLCKVAYEELLDNRKLEVTQTTDPSRQLEG
GLAGHHHHHHHHHH

FIG. 5J

Relative Expression Values for mRNA Transcripts Associated With Neuroendocrine Tumors in NTX Lines using 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	1555.3	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	227.6	16.6	4.2	0.0	33.0	45.7	3429.1	77.5	515.0	34.5	3270.6	33.9
LU86p3 - SCLC	4.7	11.9	12.2	18.7	176.8	14.5	0.5	0.4	294.9	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	1142.5	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	2353.7	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	1111.1	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	1111.1
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	303.1	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	345.2	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	31.6	146.0	25.6	239.3	81.7	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. 6A

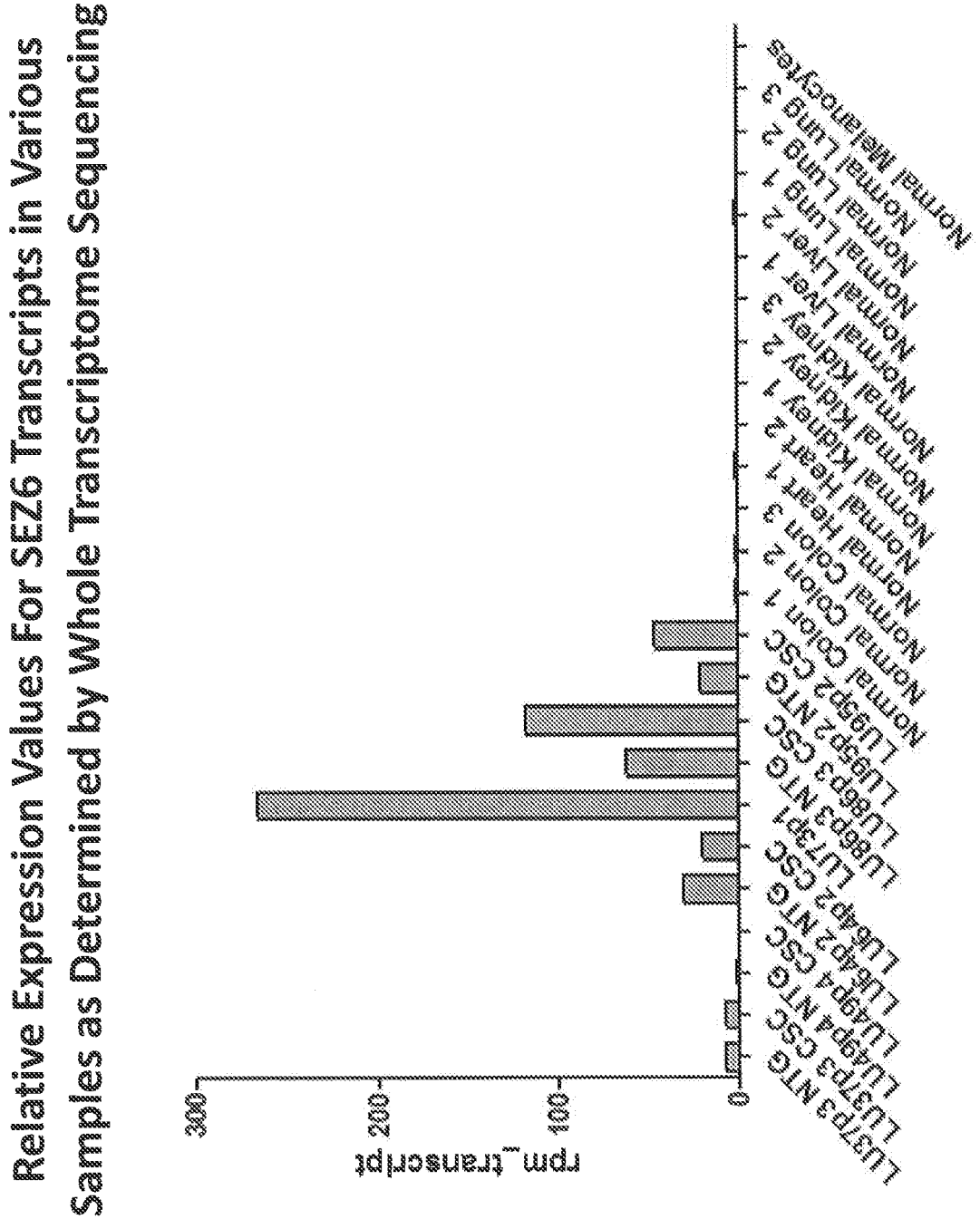

Relative Expression Values For SEZ6 Transcripts in Various Samples as Determined by Whole Transcriptome Sequencing
rpm_transcript
0
100
200
300
LUT7D3 NTG
LUT7D3 CSC
LUA9P4 NTG
LUA9P4 CSC
LUB4D2 NTG
LUB4D2 CSC
LUB6P3 LUT3P1
LUB6P3 NTG
LUB6P3 CSC
LUB5P2 NTG
LUB5P2 CSC
Normal Colon 1
Normal Colon 2
Normal Colon 3
Normal Heart 1
Normal Heart 2
Normal Kidney 1
Normal Kidney 2
Normal Kidney 3
Normal LVer 1
Normal LVer 2
Normal Lung 1
Normal Lung 2
Normal Lung 3
Normal MelanocYtes

FIG. 6B

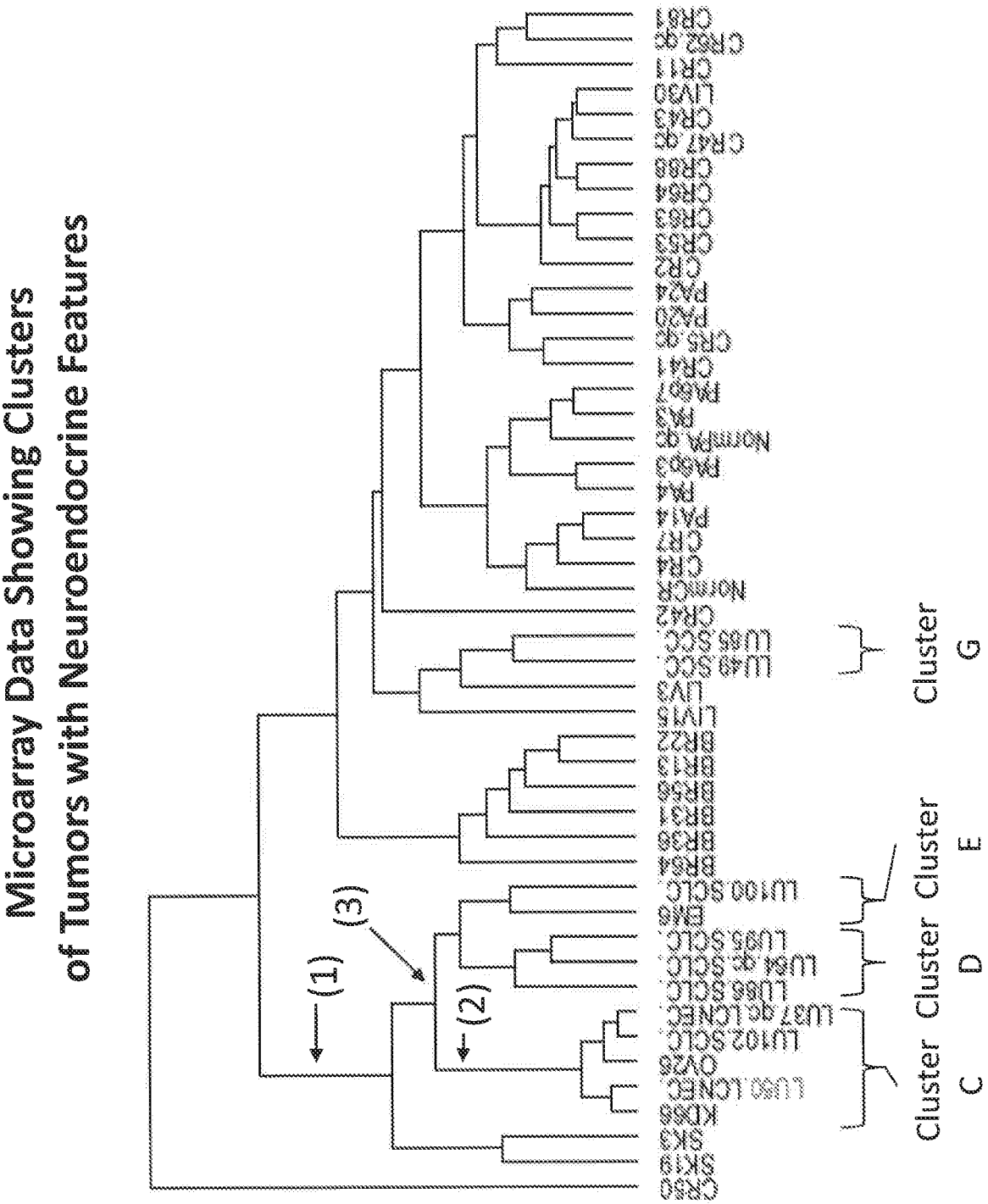

Microarray Data Showing Clusters
of Tumors with Neuroendocrine Features
(1)
(2)
(3)
Cluster C
Cluster D
Cluster E
Cluster G

FIG. 7A

Average Normalized Intensity Values for Common Markers of Neuroendocrine Phenotype

			Cluster C					Cluster D			Cluster E		Cluster G	
	Gene Symbol	Median (48 samples)	KD66	LU50(LCNEC)	OV26	LU102(SCLC)	LU37-qc(LCNEC)	LU86(SCLC)	LU64-qc(SCLC)	LU95(SCLC)	EM6	LU100(SCLC)	LU49(SCC)	LU85(SCC)
Achaete-scute complex homolog 1	ASCL1	9	6589	8238	9382	[illegible]	9664	11	3390	[illegible]	14	261	8	5
Calcitonin	CALCA	73	[illegible]	8352	[illegible]	[illegible]	[illegible]	70	24	2477	53	45	52	39
CGRP	CALCB	143	2534	1147	1547	2584	2757	[illegible]	433	1264	309	135	65	81
CD117, Kit receptor	KIT	343	5978	4907	3561	6416	6254	[illegible]	[illegible]	[illegible]	712	948	34	301
Chromogranin A	CHGA	53	6167	8902	[illegible]	8206	7408	7950	[illegible]	[illegible]	9726	4378	1249	2364
Chromogranin B	CHGB	22	1615	2152	1516	1456	1242	2365	1362	4151	4656	1833	32	24
Dopa decaroxylase	DDC	2441	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1498	4234	9297	85	334	134	286
Gamma (Neural) Enolase	ENO2	1910	2054	1881	1911	1573	1262	4043	4737	[illegible]	6394	1824	2472	2241
GDNF family receptor alpha 1	GFRA1	9	263	29	37	146	133	90	4	6	77	47	9	4
CD56	NCAM1	82	551	875	801	999	727	2618	2519	3296	361	2899	425	106
PGP9.5	UCHL1	415	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9749	[illegible]	7789	4249	122	8251
Proopiomelanocortin	POMC	94	751	427	590	750	657	66	560	5204	68	84	213	160
Somatostatin	SST	67	[illegible]	1316	[illegible]	5869	[illegible]	35	9	62	1992	3613	90	28
Somatostatin Receptor 5	SSTR5	613	733	906	875	636	633	907	344	622	916	662	918	401
Synaptophysin	SYP	19	15	15	9	17	15	27	53	91	49	19	11	19
TTF1	NKX2-1	18	3137	3508	2734	5180	3315	1258	3585	2229	27	311	85	8

FIG. 7B

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		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. 7C

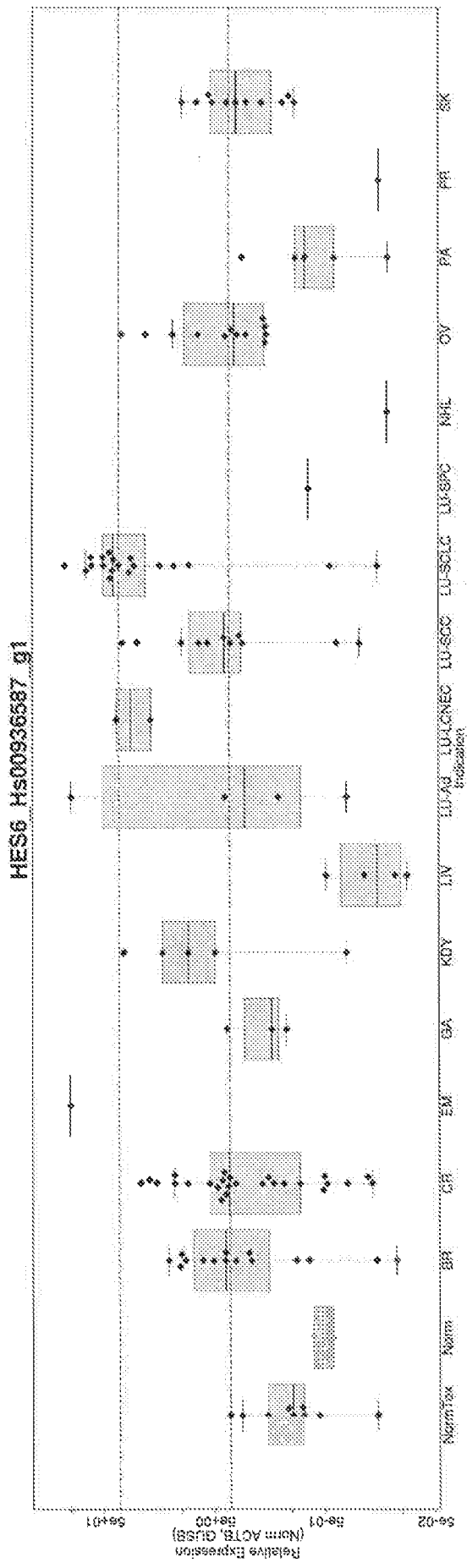

Expression of HES6 mRNA in
Neuroendocrine Tumors Derived by qRT-PCR
HES6_Hs00936587_g1
Relative Expression
(Norm ACTB, GUSB)
5e-02
5e-01
5e+00
5e+01
Normfax
Norm
BR
CR
EM
GA
KIDY
LIV
LU-AD
LU-CNEC
LU-SCC
LU-SCLC
LU-SPC
NHL
OV
PA
PR
SK
Indication

FIG. 7D

Levels of Selected Genes Linked To Neural Phenotypes

	Gene Symbol	Median (48 samples)	Cluster C					Cluster D			Cluster E		Cluster G	
			KD66	LU50 (LCNEC)	OV26	LU102 (SCLC)	LU37 (LCNEC)	LU86 (SCLC)	LU64 (SCLC)	LU95 (SCLC)	EM6	LU100 (SCLC)	LU49 (SCC)	LU85 (SCC)
Achaete-scute complex homolog 1	ASCL1	9	6889	2338	5381	22169	9664	11	3390	10738	14	261	8	5
Brain-expressed X-linked protein 1	BEX1	62	2393	4403	5349	5982	3653	10545	15184	14034	14146	81	764	50
Brain-expressed X-linked protein 3	NGFRAP1	8484	3367	4346	5975	10692	5222	21096	28966	43936	23987	21616	25021	17655
Brain-expressed X-linked protein 4	BEX4	36	8	8	36	14	6	2108	3742	6528	2113	197	511	406
CD56	NCAM1	82	551	875	801	999	727	2618	2519	3396	361	2893	425	106
Claudin 11	CLDN11	7	670	739	2374	5820	3373	548	126	213	14	108	18	3
Cytokeratin 10	KRT10	2624	3096	2503	2855	5372	5057	2731	1642	4621	3756	1026	22150	2210
Cytokeratin 17	KRT17	5858	5436	7664	9874	11425	8933	2600	3701	5973	83	304	5281	5662
Cytokeratin 19	KRT19	19604	2081	2432	3214	2435	2532	445	317	7074	877	816	2050	21401
Cytokeratin 7	KRT7	123	249	348	396	515	312	23	9	333	12	54	18	600
Delta-like 1	DLL1	51	348	565	406	497	179	218	98	514	146	162	29	120
Delta-like 3	DLL3	350	4584	7365	7	7	7	1686	3137	5814	758	676	601	492
Hairy and enhancer of split 1	HES1	670	128	129	160	92	82	551	137	335	118	528	2665	2024
Hairy and enhancer of split 6	HES6	117	196	361	481	416	279	1	2716	3535	1634	694	28	33
Islet 1	ISL1	48	18	23	22	33	16	1	30854	37341	121	572	34	26
LIM homeobox 1	LHX2	21	9	12	29	8	1	1	6871	10521	6243	1663	161	29
Neurogenic differentiation 1	NEUROD1	8	44	11	35	62	91	331	135	799	4917	1475	6	2
Neurogenic differentiation 2	NEUROD2	59	49	40	52	32	25	808	231	416	3019	450	61	65
Neuronal cell adhesion molecule	NRCAM	66	721	797	870	1156	1409	3981	4359	4579	1311	1619	5134	659
NK2 homeobox 2	NKX2-2	7	4	7	7	10	4	8725	206	1168	63	201	0	247
Rhombotin-3	LMO3	145	6875	15021	7101	6934	4686	45	2252	2761	182	986	72	271
Secretagogin	SCGN	77	1950	2620	2468	1701	3052	1164	9356	12602	147	935	42	20
Secretogranin II	SCG2	23	445	299	423	1122	1265	37	693	4085	1002	3050	108	51
Secretogranin III	SCG3	26	1552	1961	1723	1870	1692	2331	3164	10229	5925	3721	54	19
Semaphorin 4C	SEMA4C	1647	941	651	721	1123	742	8646	5452	8341	2769	3426	5124	957
Semaphorin 6C	SEMA6C	118	323	319	279	241	220	1313	1859	619	512	432	1186	107
Seizure related 6 homolog	SEZ6	60	153	143	135	75	88	1087	435	2324	135	690	51	61
Seizure related 6 homolog like	SEZ6L	113	43	25	53	42	26	48	64	116	108	114	18	119
Seizure related 6 homolog like2	SEZ6L2	1464	1136	1667	1852	1336	1089	2317	3026	5631	3793	4933	1491	3247
SRY (sex determining region Y)-box 11	SOX11	13	426	360	361	597	768	3754	6124	981	10	1880	11	17
SRY (sex determining region Y)-box 2	SOX2	8	171	175	270	396	313	2816	74	3267	0	2937	1376	348
SRY (sex determining region Y)-box 4	SOX4	5404	5693	5641	4070	3872	5206	24532	20408	23229	19875	12466	6554	1367
Synaptosomal-associated protein, 25kDa	SNAP25	10	1037	1040	1027	1108	1040	1113	921	565	618	1612	37	27
Synaptotagmin IV	SYT4	26	1418	1237	2115	3958	3076	1350	1061	1220	2775	2488	11	10
TTF-1	NKX2-1	18	3137	3508	2754	5180	3315	1258	3585	3229	27	311	85	8
Zic family member 2	ZIC2	163	25	18	29	10	5	7583	5553	2440	697	279	93	227

FIG. 7E

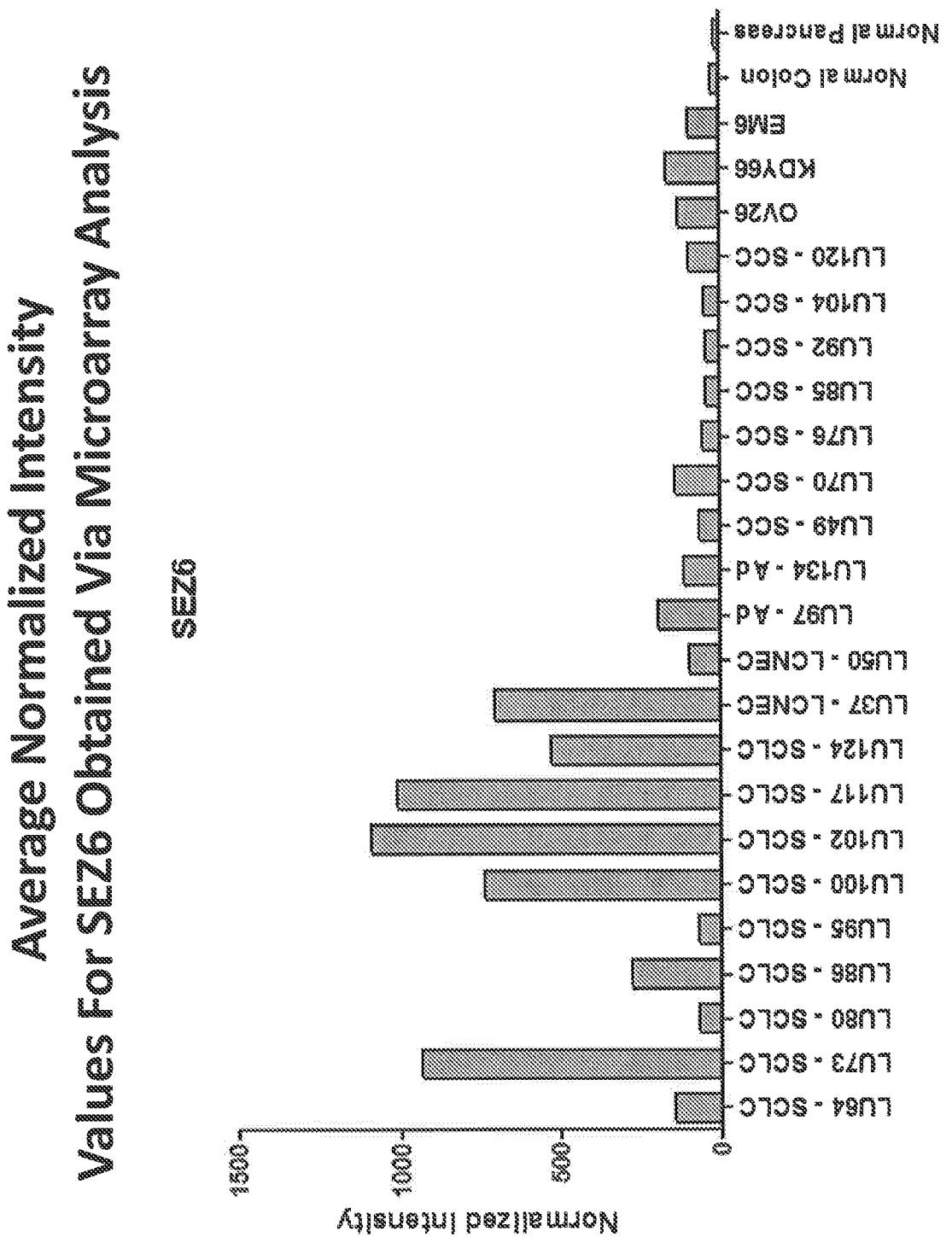

Average Normalized Intensity
Values For SEZ6 Obtained Via Microarray Analysis
SEZ6
Normalized Intensity
1500
1000
500
0
LU64 - SCLC
LU73 - SCLC
LU80 - SCLC
LU86 - SCLC
LU95 - SCLC
LU100 - SCLC
LU102 - SCLC
LU117 - SCLC
LU124 - SCLC
LU37 - LCNEC
LU50 - LCNEC
LU97 - Ad
LU134 - Ad
LU49 - SCC
LU70 - SCC
LU76 - SCC
LU85 - SCC
LU92 - SCC
LU104 - SCC
LU120 - SCC
OV26
KDY66
EM6
Normal Colon
Normal Pancreas

FIG. 7F

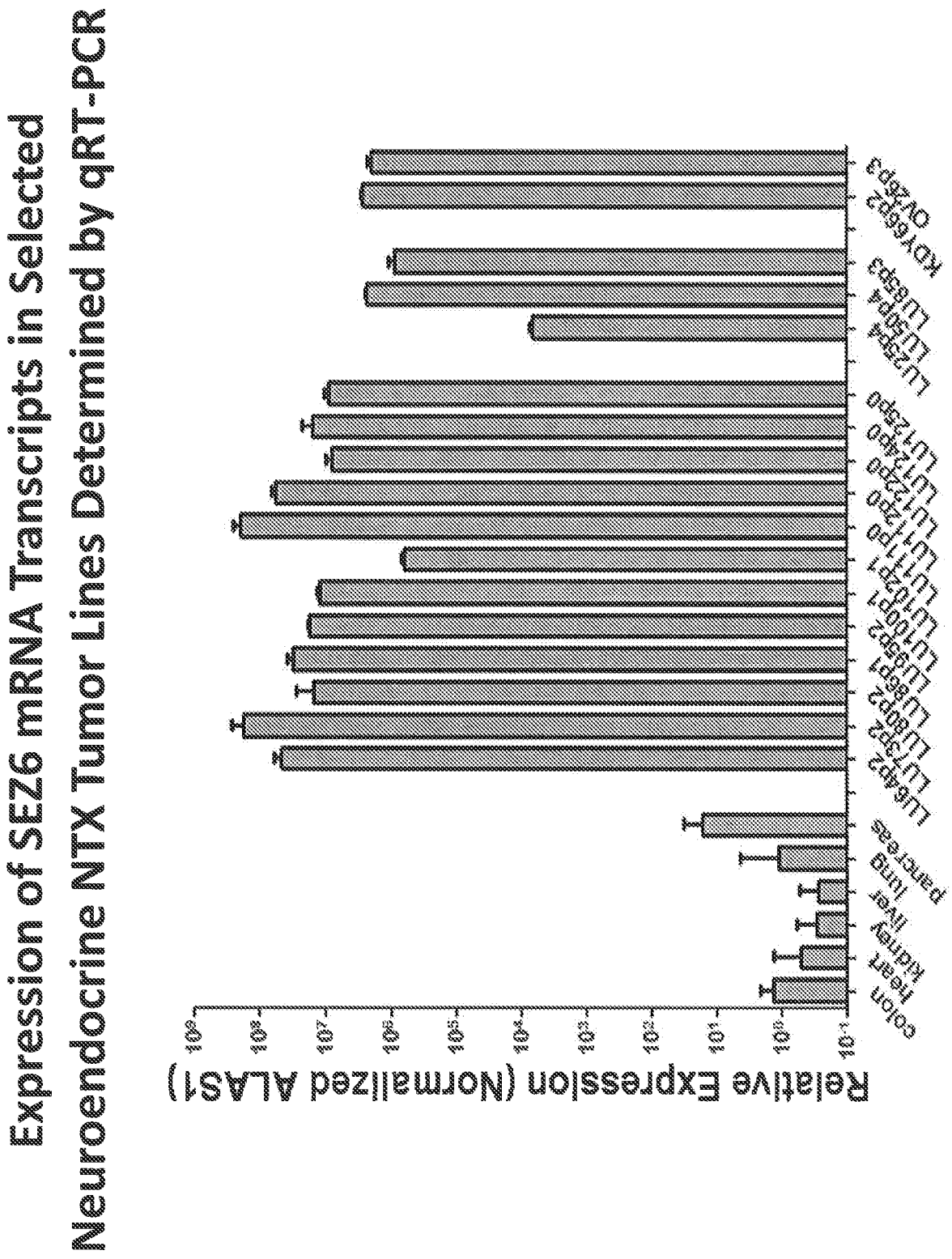

Expression of SEZ6 mRNA Transcripts in Selected
Neuroendocrine NTX Tumor Lines Determined by qRT-PCR
Relative Expression (Normalized ALAS1)
colon
heart
kidney
liver
lung
pancreas
LU6Ap2
LU73p2
LU60p2
LU6bp2
LU6bp1
LU35p2
LU100p2
LU100p1
LU102p1
LU117p2
LU172p2
LU122p2
LU124p2
LU125p2
LU125p4
LU150p4
LU85p3
KDY66p2
OV26p3

FIG. 8A

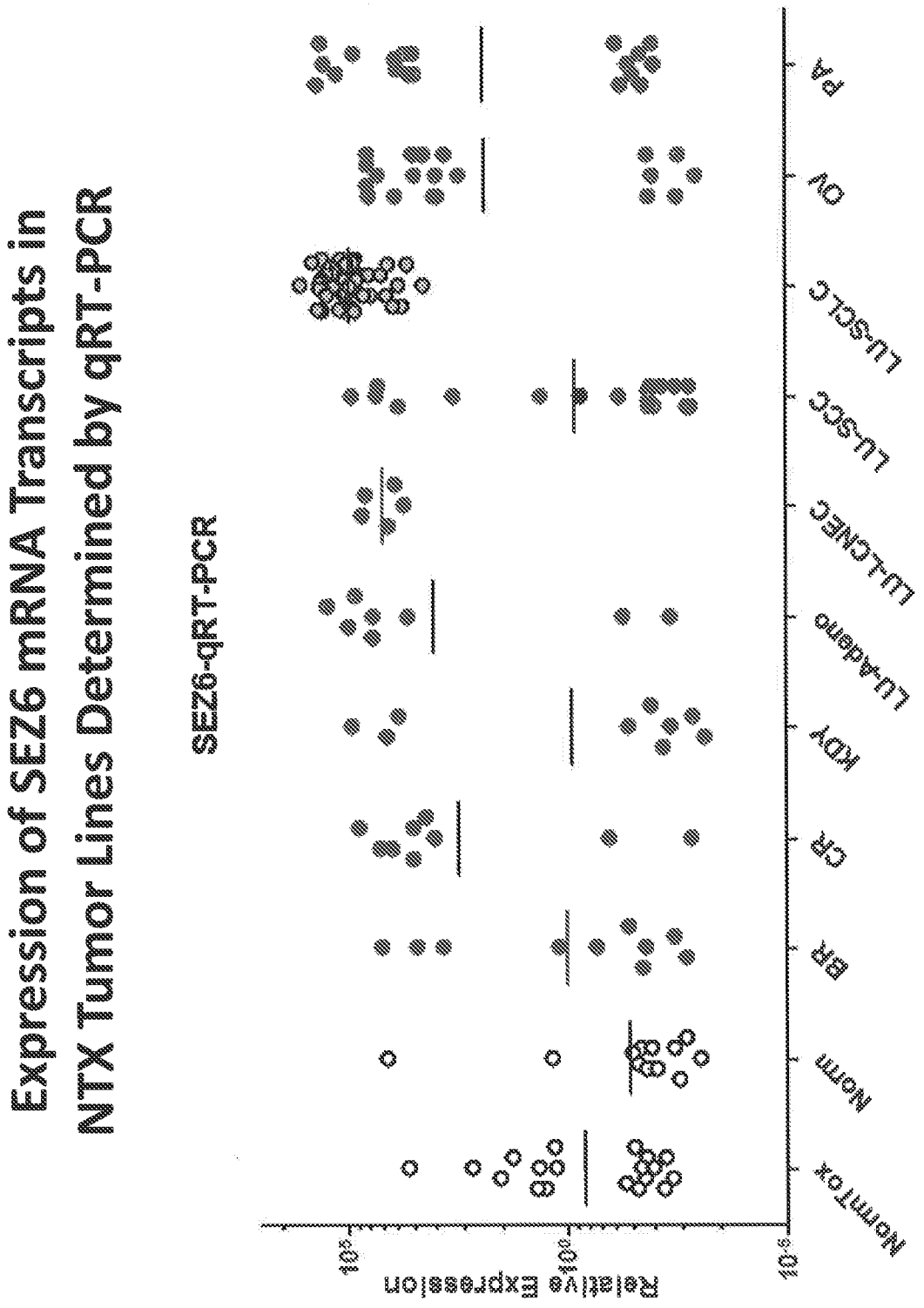

Expression of SEZ6 mRNA Transcripts in
NTX Tumor Lines Determined by qRT-PCR
SEZ6-qRT-PCR
Relative expression
10^5
10^0
10^-5
NormTox
Norm
BR
CR
KDY
LuAdeno
LuLCNEC
LuSCC
LuSCLC
OV
PA

FIG. 8B

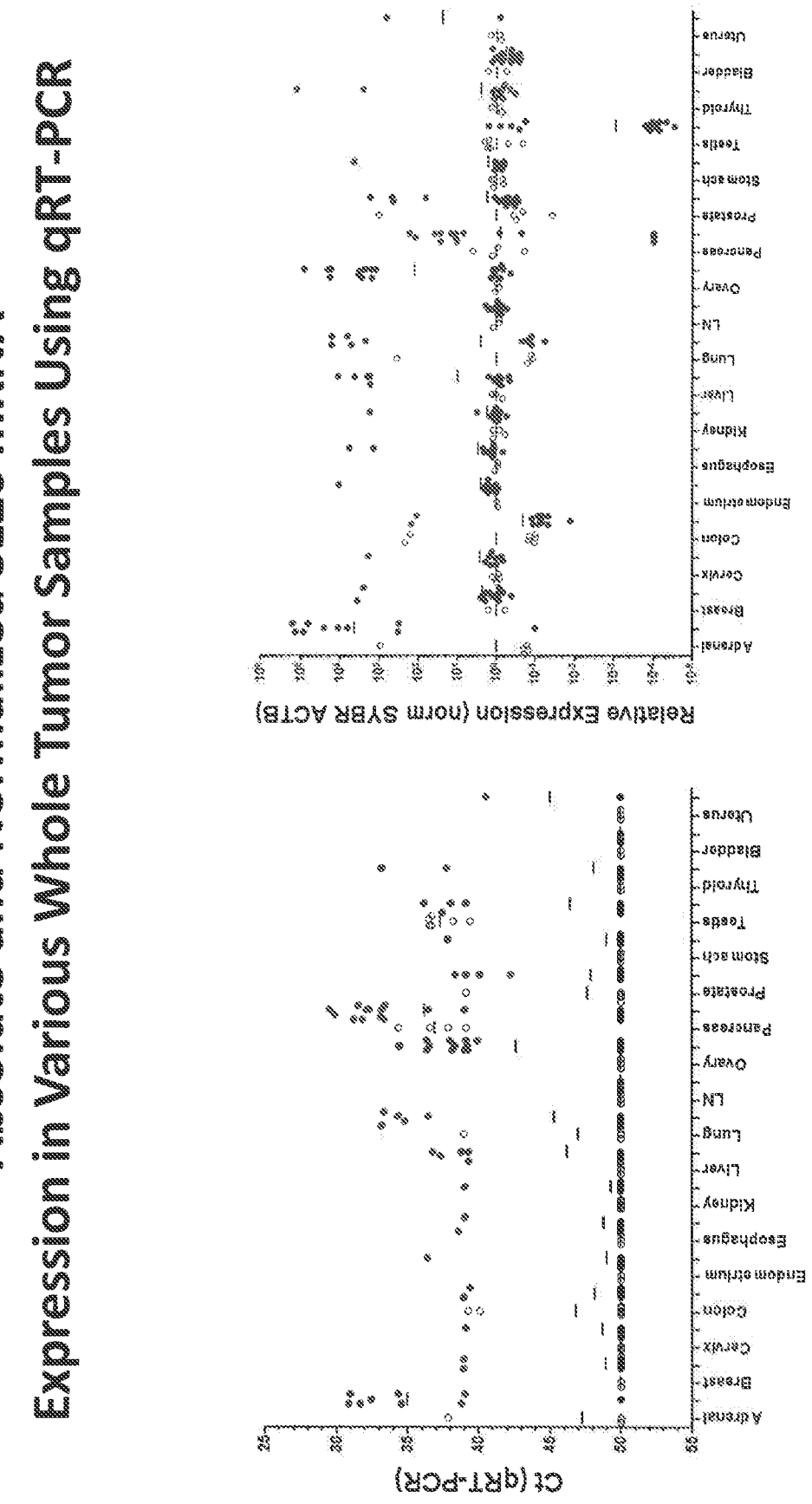

Absolute and Normalized SEZ6 mRNA
Expression in Various Whole Tumor Samples Using qRT-PCR
Ct (qRT-PCR)
Relative Expression (norm SYBR ACTB)
Adrenal
Breast
Cervix
Colon
Endometrium
Esophagus
Kidney
Liver
Lung
LN
Ovary
Pancreas
Prostate
Stomach
Testis
Thyroid
Bladder
Uterus

FIG. 9A

FIG. 9B

Protein Sequences of Exemplary Murine SEZ6 Modulator Light Chain Variable Regions

mAb	FW1	CDRL1	FW2	CDRL2	FW3	CDRL3	SEQ ID NO.
SC17.1	QIVLTQSPALMSASPGEKVSLTC	SANSTVSF	MYWYQQKPRSSPTPWIY	LTSNLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSNSPITFGAGTKLELK	20
SC17.2	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKSY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVQAEDLAVYYC	KQSYNLRTFGGGTKLEIK	22
SC17.9	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYFC	QQYYNYPYTFGGGTKLK	24
SC17.16	DIQMTQSPASLSVSVGETVTITC	RASANINSN	LVWYQQKQGKSPQLLVY	AATNLAD	GVPSRFSGSGSGTQYSLKINSLQSEDFGNYYC	QHFWGTPRTFGGGTKLEIK	26
SC17.38	DIVVTQSPASLAVSLGQRATISC	RASESVEYYGTSL	MQWFQQKPGQPPKLLIY	AASNVES	GVPARFSGSGSGTDFSLNIHPVEEDDIAMYFC	QQDRKVPWTFGGGTKLEIK	28
SC17.3	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC	QQYYSYPTFGGGTKLEIK	30
SC17.4	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LTWFQQKPGKSPKTLIY	RANRLID	GVPSRFSGSGSGQDYSLTISSLDYEDMGIYYC	LQYDDFPWTFGGGTKLEIK	32
SC17.8	DVVMTQTPLSLPVSLGDQASISC	RSSQSLVHSNGDTY	LHWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGLYFC	SQSTLIPYTFGGGTKLDIKR	34
SC17.10	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKTEDLALYYC	QQYYWFPYTFGGGTKLEIK	36
SC17.11	ENVLTQSPAIMSASPGEKVTMTC	RASSSVSSSY	LHWYQQKSGASPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLTISSVEAEDAATYYC	QQYSDYPFTFGSGTKLVIK	38
SC17.14	DVLMTQTPLSLPVSLGDQASISC	RSSQSIVHSNGNTY	LEWFLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQGSHVPYTFGGGTKLEIKR	40
SC17.15	QIVLTQSPALMSASPGEKVTMTC	SASSSVNY	MYWYQQKPRSSPKPWIY	LTSNLAS	GVPVRFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSNNPPTFGSGTKLELK	42
SC17.17	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLPS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSTPPTFGAGTKLELK	44
SC17.18	DIQMTQSSSYLSVSLGGRVTITC	KASDHINNW	LAWYQQKPGNAPRLLIS	GATSLET	GVPSRFSGSGSGKDYTLSITSLQTEDVATYYC	QQYWSIPLTFGAGTKLELK	46
SC17.19	DIVLTQSPASLAVSLGQRAAISC	KPSQSVDYDGDSY	MNWYQQKPGQPPKLLIY	AASNLES	GIPARFSGSGSGTDFTLNIHPVEEEDAATYYC	HQINDDPWTFGGGTKLK	48
SC17.22	DVVLTQTPLSLPVSLGDQASISC	RSSQSIVHINRHTY	LGWYLQKPGQSLKLLIY	GVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDMGVYYC	FQGTHVPFTFGSGTKLEIK	50
SC17.24	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKSY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVQAEDLAVYYC	KQSYNLRTFGGGTKLEIK	52
SC17.27	DVVMTQTPLTLSVTIGQPASISCK	KSSQSLLESDGKTY	LNWLLQRPGQSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGIQHPRTFGGGTKLEIK	54
SC17.28	DILLTQSPAILSVSPGEGVSFSC	RASQSIGTS	IHWYQQRTNGSPRLLIK	YASESIS	GIPSRFSGSGSGTDFTLRINSLESEDIADYYC	QQSNSWPLTFGAGTKLELK	56
SC17.29	DIVMTQSHKFMSTSVGDRVSITC	KASQDQDVGTD	VAWYQQKPGQSPKLLIY	WASTRHT	GVPDRFTGSGSGTDFTLTISNVQSEDLADYFC	QQYSSYPYTFGGGTKLEIKR	58
SC17.30	ENVLTQSPAIVSASPGEKVTMTC	CRASSSVISSY	LHWYQQKSGASPKLWIY	STSNLAS	GVPARFSGSASGTSYSLTISSVEAEDAATYYC	QQYSGYPLTFGAGTKLELK	60

FIG. 10A

Protein Sequences of Exemplary Murine SEZ6 Modulator Light Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.32	DIQMTQSPASLSASVGETVTMTC	RASGNIHNY	LVWYQQKQGKSPQLLVY	NAKTLAD	GVPSRFSGSGSGTQYSLKINSLQPEDFGSYY	QHFWSTPPTFGGGTKLEIK	62
SC17.34	DIKMTQSPSSMYASLGERVTITC	KASQDINSY	LSWFQQKPGKSPKTLIY	RANRLVD	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPPTFGGGTKLEIK	64
SC17.35	ENVLTQSPAIMSASPGEKVTLTC	RASSSMSSSY	LHWYQQKSGASPKLWIY	STSNLAS	GVPARFSGSGSGTSYSLTISSVEAEDAATYYC	QQYSAYPFTFGSGTKLEIK	66
SC17.36	QIVLTQSPALMSASPGEKVTMTC	SASSSVSY	MYWYQQKPRSSPKPWIY	LTSNLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSNPPTFGGGTKLEIKR	68
SC17.39	DVLMTQTPLSLPVSLGDQASISC	RSSQSLVHRNGNTY	FHWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYFC	SQSTYVPWTFGGGTKLEIK	70
SC17.40	DVVMTQTPLSRPVTLGDQASISC	RSSQSLVHSNGNTY	LHWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYFC	SQNTHVPFTFGSGTKLEIK	72
SC17.41	QIVLTQSPALMSASPGEKVTMTC	SASSSVSY	MYWYQQKPRSSPKPWIY	LTSNLAS	GVPTRFSGSGSGTSYSLTISSMGAEDAATYYC	QQWNTNPPTFGAGTKLELK	74
SC17.42	ENVLTQSPAIMSASPGEKVTMTC	SASSSVNY	MYWYQQKSSTSPKLWIY	DTSKLTS	GVPGRFSGSGSGNSYSLTISNMEAEDVATYYC	FQGSGYPLTFGSGTKLEIK	76
SC17.45	ENVLTQSPAIMSASPGEKVTMTC	SASSSVNY	MYWYQQKSSTSPKLWIY	DTSKLT	GVPGRFSGSGSGNSYSLTISNMEAEDVATYYC	FQGSGYPLTFGSGTKLEIK	78
SC17.46	SFVMTQTPKFLLVSAGDRVTITC	KASQSVNND	VAWYQQKPGQSPKLLIY	YASNRYT	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQDYSSPRTFGGGTKLEIK	80
SC17.47	QIVLTQSPAIMSASPGEKVSMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGSSYSLTISSMEAEDAATYYC	QQWSSTPPTFGGGTKLEIKR	82
SC17.49	DVVMTQTPLTLSVTIGQPASISC	KSSQSLLESDGKTY	LNWLLQRPGQSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGVYYC	WQGIQHPRTFGGGTKLEIK	84
SC17.50	DIVLTQSPASLAASLGQRATISC	RASQSVSTSSYSY	MHWYQQKPGQPPKLLIK	YASNLES	GVPARFSGSGSGTDFTLNIHPVEEEDTATYYC	QHSWEIPWTFGGGTKLEIK	86
SC17.53	DIVLTQSPASLAASLGQRATISC	RASQSVSTSSYSY	MHWYQQKPGHPPKLLIR	YASNLES	GVPARFSGSGSGTDFTLNIHPVEEEDTATYYC	QHSWEIPYTFGGGTKLEIKR	88
SC17.54	DVVLTQTPLTLSVTIGQPASISC	KSSQSLLYSDGKTY	LNWLLQRPGQSPKRLIY	LVSKLDS	GVPDRFTGSGSGTDFTLKISRVEAEDLGLYYC	WQGTHFPWTFGGGTKLEIK	90
SC17.56	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYFC	QQYYNYPYTFGGGTKLEIKR	92
SC17.57	QIVLTQSPAIMSASLGERVTMTC	TASSSVSSSY	LHWYQQKPGSSPKLWIY	STSNLAS	GVPPRFSGSGSGTSYSLTISSMEAEDAATYYC	HQYHRSPPTFGGGTKLEIK	94
SC17.59	DIQMTQSPASLSASVGETVTITC	RASGNLHNY	LAWYQQKQGKSPQLLVY	NAKTLAD	GVPSRFSGSGSGTQYSLKINSLQPEDFGTYFC	QHFWSIPPTFGGGTKLEIKR	96
SC17.61	QIVLTQSPAIMSASPGEKVTISC	SASSSVSY	IYWYQQKPGSSPKPWIY	RTSNLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQYHSYPWTFGGGTKLEIK	98
SC17.63	SIVMTQTPKFLLVSAGDRVAITC	KASQSVSND	VAWYQQKPGQSPTLLISY	ASNRYT	GVPDRFTGSGYGTDFTFTISTVQAEDLAVYFC	QQGYSSPFTFGGGTKLEIKR	100

FIG. 10A (Cont.)

Protein Sequences of Exemplary Murine SEZ6 Modulator Light Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.71	DIQMTQSPASLSASVGETVTIAC	RASGNIHNY	LTWYQQRQGKSPQLLVY	NAKTLAV	GVPSRFSGSGSGTQYSLKINSLQPEDFGSYYC	QHFWNTPPTFGGGTKLEIK	102
SC17.72	DIQMTQTTSSLSASLGDRVTISC	SASQGISNY	LNWYQQKPDGTVKLLIY	YTSSLHS	GVPSKFSGSGSGTDYSLTISNLEPEDIATYYC	QQYSKLPYTFGGGTKLEIKR	104
SC17.74	DIQMTQSSSYLSVSLGGRVTITC	KASDHINNW	LAWYQQKPGNAPRLLIS	GATSLET	GVPSRFSGSGSGKDYTLSITSLQTEDVATYYC	QQYWSTPPTFGAGTKLELK	106
SC17.76	DIVITQDELSNPVTSGESVSISC	RSSKSLLYKDGKTY	LNWFLQRPGQSPQLLIY	LMSTRAS	GVSDRFSGSGSGTDFTLEISRVKAEDVGVYYC	QQLVEYPRTFGGGTKLEIK	108
SC17.77	DIQMTQSPASLSASVGETVTITC	RASGNIHNY	LAWYQQKQGKSPQLLVY	NAKALAD	GVPSRFSGSGSGTQYSLKINSLQPEDFGSYYC	QHFWSIPPTFGGGTKLEIK	110
SC17.79	DIQMTQSPASLSASVGETVTITC	RASGNIHNY	LAWYQQKQGKSPQLLVY	NAKTLAD	GVPSRFSGSGSGTQYSLRINSLQPEDFGSYYC	QHFWSTPPTFGGGTKVEIK	112
SC17.81	DIVMSQSPSSLTVSVGEKVTLSC	KSSQSLLYSTNQKIY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFTGSGSGTDFTLAISNVKAEDLAVYYC	QQYYSYPYTFGGGTKLEIKR	114
SC17.82	QIVLTQSPAIMSASLGEEITLTC	SASSSVSY	MHWYQQKSGTSPKLLIY	STSNLAS	GVPSRFSGSGSGTFYSLTISSVEAEDAADYYC	HQWSSFTFGSGTKLEIK	116
SC17.84	QIVLTQSPAIMSASPGEKVTMTC	SASSSISY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISNMEAEDAATYYC	QQWSSTPPTFGGGTKLEIKR	118
SC17.85	DIVMTQAAFSNPVTLGTSASISC	RSSKSLLHSNGITY	LYWYLQKPGQSPQLLIY	QMSNLAS	GVPERFSSSGSGSDFTLRISRVEAEDVGVYYC	AQNLEHPTFGGGTKLEIK	120
SC17.87	DVVMTQTPLSLPVSLGDQASISC	RSSQSLVHSNGNTY	LHWYLQKPGQSPKLLIS	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYFC	SQSTHVPPMFGGGTRLEIK	122
SC17.89	DVLMTQTPLSLPVSLGDQASISC	RSSQSIVHSNGNTY	LEWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQGSHVPFTFGSGTKLEIK	124
SC17.90	DIVMSQSPSSLAVSVGEKVTMSC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRKS	GVPDRFTGSGSGTDFTLTISSVKAEDLAVYYC	HQYYSYPLTFAAGTKLELK	126
SC17.91	DVVMTQTPLSLPVSLGDQASISC	RSSQSLVHSNGNTY	LLWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFALKISRVEAEDLGVYFC	SQSTHVPWTFGGGTKLEIK	128
SC17.93	DIVMSQSPSSLAVSVGEKVTMTC	KSSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRES	GVPDRFIGSGSGTDFTLTISSVKAEDLAIYYC	QQYYRYPLTFGAGTKLELK	130
SC17.95	DIQMTQTTSSLSASLGDRVTISC	SASQGINNY	LNWYQQKPDGTVTLLIY	YTSSLHS	GVPSRFSGSGSGTDYSLTISNLEPEDIATYYC	QQYSKLPWTFGGGTKLEIK	132
SC17.97	DVVMTQTPLSLPVSLGDQASISC	RSSQSLVHNNGNTY	LHWYLQKPGQSPNLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISIVEAEDLGLYFC	SQSTHVPRTFGGGTKLEIK	134
SC17.99	DIVMSQSPSSLAVSVGEKVTMNC	ESSQSLLYSSNQKNY	LAWYQQKPGQSPKLLIY	WASTRDS	GVPDRFTGSGSGTDFTLTISSVRAEDPAVYYC	QQYYSYPLTFGAGTKLELK	136
SC17.102	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPPRFSGRGSGTSYSLTISSMEAEDAATYYC	QHWSSNPPTFGAGTKLEMK	138

FIG. 10A (Cont.)

Protein Sequences of Exemplary Murine SEZ6 Modulator Light Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.114	DVVMTQSPLSLPVSLGDQASISC	RSSQSLVHSNGNTY	LHWYLQKPGQSPKLLIY	KVSSRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYFC	SQSTHVPFTFGSGTKLEIK	140
SC17.115	DVVMTQSPLSLPVSLGDQASISC	RSSQSLVHSNGNTY	LHWYLQKPGQSPKLLIY	RVSNRFS	GVPDRFSGSGSGTDFTLTISRVEAEDLGVYFC	SQSTHLPRTFGGGTKLEIK	142
SC17.120	DIVLTQSPASLAVSLGQRATISC	RASESVDSYGNSF	MHWYQQKPGQPPKVLIY	RASNLES	GIPARFSGSGSRTDFTLTINPVEDEDVATYYC	QQSNEDPYTFGGGTKLEIKR	144
SC17.121	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISSMETEDAATYYC	QQWSNTPPTFGSVTKLEIK	146
SC17.122	DIVITQDDLSNPVTSGESVSISC	RSNKSLLYKDGKTY	LNWFLQRPGQSPQLLIY	LMSTRAS	GVSDRFSGSGSGTDFTLEISRVKAEDVGVYYC	QQLVEYPRTFGGGTKLEIK	148
SC17.140	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISSMEAEDAATYYC	QQWSSTPPTFGSGTKLEIK	150
SC17.151	DIVLTQFPASLAVSLGQRATIPC	RASESVDSYGNSF	MHWFQQKPGQPPKLLIY	RASNLES	EIPARFSGSGSGTDFTLTINPVEADDVATYYC	QQSHEDPYTFGGGTKMEIKR	152
SC17.156	DVVMTQSPLSLPVSLGDQASISC	RSSQSIVHSNGNTY	LEWYLQKPGQSPKLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDLGVYYC	FQGSHVPPTFGGGTKLEIK	154
SC17.161	DIVMSQSPSSLAVSVGEKVTMNC	ESSQSLLYNSNQKNY	LAWYQQKPGQSPKLLIY	WASTRDS	GVPDRFTGSGSGTDFTLTISSVRAEDPAVYYC	QQYFNYPLTFGAGTKLELK	156
SC17.166	QIVLTQSPAIMSASPGEKVTMTC	SASSSISY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFSGSGSGTSYSLTISNMEAEDAATYYC	QQWSSTPPTFGGGTKLEIKR	158
SC17.187	DIKMTQSPSSMYASLGERVTLTC	KASQDINSY	LSWFQQKPGKSPETLIY	RANRLID	GVPSRFSGSGSGQDYSLTISSLEYEDMGIYYC	LQYDEFPPTFGGGTKLEIK	160
SC17.191	QIVLTQSPAIMSASPGEKVTMTC	SASSSVSY	MHWYQQKSGTSPKRWIY	DTSKLAS	GVPARFTGSGSGTSYSLTISSMEAEDAATYYC	QQWSSSPPTFGAGTKLELK	162
SC17.193	DLVLTQSPASLAVSLGQRATISC	RASESVSTSGYSY	MHWYQQKPGQPPKLLIY	LASNLES	GVPARFSGSGSGTDFTLNIHPVEEEDATTYYC	QHSRELPYTFGGGTKLEIKR	164
SC17.199	DIVLTQSPASLAVSLGQRATISC	RASESVDSYGNSF	MHWYQQKPGQPPKPLIY	RASNLES	GIPARFSGSGSRTDFTLTINPVEADDVATYYC	QQSNEDPYTFGGGTKLEIKR	166
SC17.200	DIVLTQSPASLAVSLGQRATIPC	RASQSVDYNGISY	MHWFQQKPGQPPKLLIY	AASNVQS	GIPARFSGSGSGTDFTLNIHPVEEEDAATPYC	QQSHEDPPTFGGGTKLEIK	168

FIG. 10A (Cont.)

Protein Sequences of Exemplary Humanized SEZ6 Modulator Light Chain Variable Regions

mAb	FW1	CDRL1	FW2	CDRL2	FW3	CDRL3	SEQ ID NO.
hSC17.16	DIQMTQSPSSLSASVGDRVTITCR	RASANINSN	LVWYQQKPGKAPKLLIY	AATNLAD	GVPSRFSGSGSGTDFTLTISSLQPEDFATYYC	QHFWGTPRTFGGGTKLEIK	170
hSC17.17	EIVLTQSPATLSLSPGERATLSC	SASSVSY	MHWYQQKPGQAPRLLIY	DTSKLPS	GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	QQWSSTPPTFGQGTKLEIK	172
hSC17.24	DIVMTQSPDSLAVSLGERATIN	KSSQSLLYSSNQKSY	LAWYQQKPGQPPKLLIY	WASTRES	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	KQSYNLRTFGGGTKVEIKR	174
hSC17.28	EIVLTQSPDFQSVTPKEKVTITC	RASQSIGTS	IHWYQQKPDQSPKLLIK	YASESIS	GVPSRFSGSGSGTDFTLTINSLEAEDAATYYC	QQSNSWPLTFGQGTKLEIK	176
hSC17.34	DIQMTQSPSSLSASVGDRVTITC	KASQDINSY	LSWFQQKPGKAPKSLIY	RANRLVD	GVPSRFSGSGSGTDYTLTISSLQPEDFATYYC	LQYDEFPPTFGQGTKLEIK	178
hSC17.46	AIQMTQSPSSLSASVGDRVTITC	KASQSVNND	VAWYQQKPGKAPKLLIY	YASNRYT	GVPSRFSGSGSGTDFTLTISSLQPEDFATYFC	QQDYSSPRTFGQGTKLEIK	180
hSC17.151	EIVLTQSPATLSLSPGERATLSC	RASESVDSYGNSF	MHWYQQKPGQAPRLLIY	RASNLES	GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	QQSHEDPYTFGQGTKLEIK	182
hSC17.155	DIVMTQSPDSLAVSLGERATINC	KSSQSLLYSSNQKNY	LAWYQQKPGQPPKLLIYW	WASTRKS	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	HQYYSYPLTFGQGTKLEIK	184
hSC17.156	DIVMTQTPLSLPVTPGEPASISC	RSSQSIVHSNGNTY	LEWYLQKPGQSPQLLIY	KVSNRFS	GVPDRFSGSGSGTDFTLKISRVEAEDVGVYY	CFQGSHVPPTFGGGTKLEIK	186
hSC17.161	DIVMTQSPDSLAVSLGERATINC	ESSQSLLYNSNQKNY	LAWYQQKPGQPPKLLIY	WASTRES	GVPDRFSGSGSGTDFTLTISSLQAEDVAVYYC	QQYFNYPLTFGQGTKLEIKR	188
hSC17.200	EIVLTQSPATLSLSPGERATLSC	RASQSVDYNGISY	MHWYQQKPGQAPRLLIY	AASNVQS	GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	QQSIEDPPTFGGGTKVEIK	190
hSC17.200m1	EIVLTQSPATLSLSPGERATLSC	RASQSVDYDGISY	MHWYQQKPGQAPRLLIY	AASNVQS	GIPARFSGSGSGTDFTLTISSLEPEDFAVYYC	QQSIEDPPTFGGGTKVEIK	192

FIG. 10A (Cont.)

Protein Sequences of Exemplary Murine SEZ6 Modulator Heavy Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.1	SDVQLQDSGPGLVKPSQSLSVTCTVT	GYSITWGY	YWNWIRQFPGNKLEWMGN	IHNSGGTN	YNPSLKSRISITRDTSKNQFFLQLNSVTTEDTATYYC	ATTNWDYFDYWGQGTTLTVSS	21
SC17.2	QVQLQQSDAELVKPGASVKISCKVS	GYTFTDHT	IHWMKQRPEQGLEWIGY	IYPRDGST	KYNEEFKGKATLTADKSSSTAYMQLNSLTSEDSAVYFC	ARSYSNYFDYWGQGTTLTVSS	23
SC17.9	QVQLQQPGAEIVRPGASVKLSCKAS	SGYTFTDYW	MNWVKQRPGQGLEWIGA	IDPSDSYT	SYNPKFKGKATLTVDTSSSSAYMQLSSLTSEDSAVYFC	ARRGTPGKPLVYWGQGTLVTVSA	25
SC17.16	EVQLQQSGPELMKPGASVKMSCKAS	GYTFTDYN	MYWVKQNQGKSLEWIGE	INPNNGGT	AYNQKFRGKATLTVDKSSSTAYMELRSLTSEDSAVYYC	ARYDKGFDYWGQGTTLTVSS	27
SC17.38	QVTLKESGPGILQPSQTLSLTCSFS	GFSLNTSGMS	VGWVRQPSGRGLEWLAH	IWWNGDK	YYNPALKSRLTISKDTSNNQVFLKIASVVTADTATYFC	ARIRQYYYAMDYWGQGTSVTVSS	29
SC17.3	QVQLQQPGAELVKPGASVKLSCKAS	SGYTFPSYW	IHCVKQRPGQGLEWIGV	INPSNGRT	NYNEKFKNKATLTVDKSSSTAYMQLSSLTSEDSAVYYC	VRGGTGYTMDYWGQGTSVTVSS	31
SC17.4	QIQLVQSGPELKKPGETVKISCKAS	GYTFTDYS	MHWVKQAPGKGLKWLGW	INTETGEP	TYSEDFKGRFAFSLETSASTAYLQINNLKNEDTATYFC	VKNKGWFAYWGQGTLVTVSA	33
SC17.8	QVHLQQSGTEVMKPGASVKISCKAT	GYTFSSYW	IEWIKQRPGHGLEWIGE	ILPGSGNT	NNNEKFKGKATITADTSSNIAYIQLSSLTSEDSAVYYC	AGGPAAYWGQGTLVTVSA	35
SC17.10	EVQLQQSGAELVKPGASVKLSCTAS	GFNIKDTY	MHWVKQRPEQGLEWIGR	IDPANVNT	KYDPKFQGKATITADTSSNTAYLQLSSLTSEDTAVYYC	VRGNVYWGQGTLVTVSA	37
SC17.11	EVQLQQSGPELVKPGALVMMSCKAS	GYTFTDYY	MHWVKQSHGQSLEWIGEV	IPYNDET	FYNRKFKDKATLTVDKSSSTAYMELRSLTSEDSAIYYC	ARRHRYDGFRYAIDYWGQGTSVTVSS	39
SC17.14	EVQLQQSGPVLVKPGASVKMSCKAS	GYTITDYN	MNWVKQSHGKSLEWIGV	INPYNGNT	RYNQMFKGKATLTVDKSSSTAYMELNSLTSEDSAVYYC	TRWGTTVVGANWGQGTTLTVSS	41
SC17.15	DVKLVESGGGLVKLGGSLKLSCAAS	GFTFSSYA	MSWVRQTPEKRLEWVAT	ITSGGGNT	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	ARRDYYGSSYVMFAYWGQGTLVTVSA	43
SC17.17	EVQLQQSGPEVMKPGASVKMSCKAS	GYTFTDYN	MHWVKQNQGKSLEWIGE	INPNIGGT	GYNQKFKGKATLTVHKSSSTAYMELRSLTSEDSAVYYC	ARTYSYYSYEFAYWGQGTLVTVSA	45
SC17.18	QVTLKESGPGILQPSQTLSLTCSFSGFS	GFSLSTSTMG	VGWIRQPSGKGLEWLAD	IWWDDSK	YYNPSLKSRLTISKDTSSNQVFLKITSVDTADTATYYC	ARKGRTARATRGFAYWGHGTLVTVSA	47
SC17.19	SDVQLQESGPGLVKPSQSLSVTCTVT	GYSITSSYT	WNWIRQFPGNKLEWMGY	IHYSGST	NYNPSLRSRISITRDTSKNQFFLQLNSVTTEDTATYYC	ARSRYYYDAYGFAYWGQGTLVTVSA	49
SC17.22	QIQMMQSGPELKKPGETVKISCKAS	GYSFTNYG	MNWVKQAPGKGLKWMGW	INTYTGEP	TYADDFKGRFAFSLETSASTAYLQINNLKNEDMATYFC	TRGYYGSSYDALDYWGQGTSVTVSS	51
SC17.24	QVQLQQSDAELVKPGASVKISCKVS	GYTFTDHT	IHWMKQRPEQGLEWIGY	IYPRDGST	KYNEEFKGKATLTADKSSSTAYMQLNSLTSEDSAVYFC	CARSYSNYFDYWGQGTTLTVSS	53
SC17.27	QVQLQQSGAELVRPGASVTLSCKAS	GYTFTDYE	MHWVKQTPVHGLEWIGG	IDPETGGTA	YNQKFKGKATLTADKSSSTAYMELRSLTSEDSAVYFC	TRWFSYWGPGTLVTVSA	55
SC17.28	QVHLPQSRPELVKPGASVKISCKAS	GYGFTRSY	IHWVKQRPGQGLEWIGY	IS5GSGGT	TYNQKFKGKASLTADNPSSTAYMHLSSLTSEDSAIYFC	ARGGVRYFDVWGAGTTVTVSS	57
SC17.29	EVQLQQSGPELMKPGASVKMSCKAS	GYTFTDYN	MHWVKQNQGKSLEWIGE	INPHNGGT	GYNQKFKGKATLTVDKSSSTSYMELRSLTSEDSAVYYC	AGGYPAFDYWGQGTTLTVSS	59
SC17.30	EVKLVESEGGLVQPGSSMKLSCTAS	GFTFSDYY	MAWVRQVPEKGLEWVAN	INYDGSST	YYLDSLKSRFIISRDNAKNILYLQMSSLKSEDTATYYC	ARDDYYGSSPSYWYFDVWGAGTTVTVSS	61

FIG. 10B

Protein Sequences of Exemplary Murine SEZ6 Modulator Heavy Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.32	EVKLEESGGGLVQPGGSMKLSCVAS	GFTFSNYW	MSWVRQSPEKGLEWVAE	IRLKSNNYAT	HYAESVKGRFTISRDDSKSSVFLQMNNLRTEDTGIYYC	TRHYYYAMDYWGQGTSVTVSS	63
SC17.34	EVQLQQSGPELVKPGSSVKISCKAS	GYTFTDYN	MDWVKQSHGKRLEWIGY	IYPDNGGA	GYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYC	SRSITTAWFAYWGQGTLVTVSA	65
SC17.35	EVQLQQSGPELVKPGALVKMSCKAS	GYTFTDYY	IHWVKQSHGKSLEWIGE	INPYNGET	FYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYC	ARRGWYLTGYAMDYWGQGTSVTVSS	67
SC17.36	EVQLQESGPSLVKPSQSQSLTCSVT	GDSITSDY	WNWIRKFPGKKVEYMGY	INYSGST	YYNPSLKSRISITRDTSKNQYYLQLNSVTSEDTATYYC	ARTSYYNKFLPFAYWGQGTLVTVSA	69
SC17.39	EVQLVESGGGLVQPGGSRKLSCAAS	GFTFSSYG	MHWVRQAPEKGLEWVAY	ISSNDGTI	YYADTVRGRFTISRDNAKNTLFLQMTSLRSEDTAMYYC	ARPSNWVFDYWGQGTTLTVSS	71
SC17.40	QVQLQQPGAEIVRPGASVKLSCKAS	GYTFTDYW	MNWVKQRPGQGLEWIGT	IDPSDSYT	RYNQKFKGKATLTVDTSFSSAYMQLSSLTSEDSAVYFC	ASGGRGFGYWGQGTPVTVSV	73
SC17.41	DVKLVESGGGLVKLGGSLKLSCAAS	GFTFSSYA	MSWVRQTPEKRLEWVAT	ISSGGGNT	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	ARRDYYGTSYVMFAYWGQGTLVTVSA	75
SC17.42	DVKLVESGGGLVRPGGSLKLSCAAS	GFTFSRYT	MSWVRQTPEKRLEWAAT	INSGGSNT	YYPDSVKGRFTISRDNAKNTLFLQMSSLKSEDTAMYYC	TNGNHWGQGTTLTVSS	77
SC17.45	QVQLQQPGSVLVRPGDSEKLSCKAS	GYTFTSYW	MHWVKQSPGQGLEWIGE	IHPHSGST	NYNEKFKGKATLTVDTSSSTAYVDLSSLTSEDSAVYYC	VGGHYDYWGQGTTLTVSS	79
SC17.46	QVQLQQPGAELVKPGASMKLSCKAS	GYTFTSYW	INWVKQRPGQGLEWIGN	IFPDTTTT	NYNEKFKSKATLTVDTSSSTAYMQLSSLTSDDSAVYYC	AREYYDGTYDAMDYWGQGTSVTVS	81
SC17.47	EVQLQQSGPELVKPGASVKISCKAS	GYSFTDYY	MRWVKQSPEKSLEWIGE	INPSTGGTT	TYNQNFKAKATLTVDKSSSTAYMQLKSLTSEDSAVYYC	ARGGYFLYYFDYWGQGTTLTVSS	83
SC17.49	QVQLQQSGAELVRPGASVTLSCKAS	GYTFTDYE	MHWVKQTPVHGLEWIGG	IDPETGGT	AYNQKFKGKATLTADKSSSTAYMELRSLTSEDSAVYFC	TRWFSYWGPGTLVTVSA	85
SC17.50	EVQLVESGGGLVKPGGSLKLSCAAS	GFTFSDYG	MHWVRQAPEKGLEWVAY	ISSGSRTI	YYADTVKGRFTISRDNAKNTLFLQMTSLRSEDTAMYYC	ARVYYGSTYGYFDVWGTGTTVTVSS	87
SC17.53	EVQLQQSGPELVKPGASVKISCKAS	GYTFTDYN	MHWVKQSHGKRLEWIGY	IHPYNGGS	GYNQKFKRKATLTVDNSSNTTYMELRSLTSEDSAVYYC	ARSYDYDTWFGYWGQGTLVTVRA	89
SC17.54	EVKLEESGGGLVQPGGSMKLSCVAS	GFTFSNYW	INWVRQSPEKGLEWVAE	IRMKSNNYAT	HYAESVKGRFTISRDDSKSCVYLQMNNLRPEDTGIYYC	TRGGYWGQGTTLTVSS	91
SC17.56	QIQLVQSGPELKKPGETVKISCKAS	GYTFTNYG	MNWVKQAPGKGLKWMAW	INTYTGEP	TYADDFKGRFAFSLETSASTASLQIINLKNEDTATYFC	ARIGDSSPSDYWGQGTTLTVS	93
SC17.57	QIQLVQSGPELKKPGETVKISCKAS	DYTFTDFS	IHWVRQSPGKGLKWMGW	INTETGEPT	VAEDFKGRFAFSLETSASTAFLQIYNLKNEDSATYFC	ARGRYYGHDYAMDYWGQGTSVTVSS	95
SC17.59	EVKLEESGGGLVQPGGSMKLSCVAS	GFTFSNYW	MNWVRQSPEKGLEWVAE	IRLKSNNYAT	HYAESVKGRFTISRDDSKSSVYLQMNNLRAEDTGIYYC	TRLWDFAMDYWGQGTSVTVSS	97
SC17.61	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTFGMG	VGWIRQPSGKGLEWLAQ	IWWDDYK	YYNPALKSRLTISKDTSKNQVFLKIANVDTADTATYYC	ARIGYYSGSSRCWYFDVWGTGSTVTVSS	99
SC17.63	QVQLQQSDAELVKPGASVKISCKAA	GYTFTDLT	IHWVKQRPEQGLEWIGY	IYPGDSNT	KYNEKFKGKATLTADKSSSTAYMQLNSLTSEDSVVYFC	ARMITPYYFDYWGQGTTLTVS	101

FIG. 10B (Cont.)

Protein Sequences of Exemplary Murine SEZ6 Modulator Heavy Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.71	EVKLEESGGGLVQPGGSMKLSCVAS	GIIFSNYW	MNWVRQSPEKGLEWVAE	IRLKSNNYST	HYAESVKGRFTISRDDSKSSVYLQMNNLRAEDTGIYYC	TRHYYYAMDYWGQGTSVTVSS	103
SC17.72	EVQLVESGGGLVKPGGSLKLSCAAS	GFTFSSYG	MSWVRQTPEKRLEWVAA	INSNGGST	YYPDTVKGRLTISRDNGKNTLYLQMSSLRSEDTALYYC	VRDDGYYVFFAYWGQGTLVTVSA	105
SC17.74	QVQLKQSGPGLVAPSQSLSITCTVS	GFSLTSYG	VDWVRQSPGKGLEWLGV	IWGGGST	NYNSALKSRLSITKDNSKSQVFLKMNSLQTDDTAMYYC	ASGDYDGSLWFAYWGQGTLVTVSA	107
SC17.76	EVQLVESGGGLVKPGGSLKLSCVAS	GFTFSSYG	MSWVRQTPDKRLEWVAT	ISSGGTFT	YYPDSVKGRFTVSRDNAKNTLYLQMSSLKSEDTAMYYC	SRHGWGWGQGTLVTVSA	109
SC17.77	EVKLEESGGGLVQPGGSMKLSCVAS	GFTFSNYW	MNWVRQSPEKGLEWVAE	IRLKSNNYAT	HYAESVKGRFTISRDDSKSSVYLQMNNLRVEDTAIYYC	TRHYDYAMDYWGQGTSVTVSS	111
SC17.79	EVKLEESGGGLVQPGGSMKLSCVAS	GFTFSDYW	MNWVRQSPEKGLELVAE	IRLISNNYAT	HYAESVKGRFTISRDDSKSSVYLQMNNLRAEDTGIYYC	TRHYYYALDYWGQGTSVTVSS	113
SC17.81	EVQLQQSGAELVKPGASVKLSCTAS	GFNINDTY	YHWLKQRPEQGLEWIGR	IDPANVNT	KYDPKFQGKATLTADTSSNTAYLQLSSLTSEDTAVYYC	GRGNAYWGQGTLVTVSA	115
SC17.82	EVQLQQSGPELVKPGASVKMSCKAS	GYTFTDSY	MNWVKQSHGKSLEWIGR	VNPNNGGA	SYNHKFKGKATLTVDKSLSTAYMRLNSLTSEDSAVYYC	SRSGDLYYYAMDYWGQGTSVTVSS	117
SC17.84	EVQLQQSGPELMKPGASVKMSCKAS	GYIFTDYN	NMHWVKQNQGKSLEWIGE	VNPNTGGI	GYNQKFKGKATLTVDKSSSTAYMDLRSLTSEDSAVYYC	ARDGNYCFDYWGQGTTLTVSS	119
SC17.85	EVQLVESGGDLVKPGGSLKLSCAAS	GFTFSNYG	MSWVRQTPDKRLEWVAT	ISTGGTYT	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	VGQSYSDYVSFAYWGQGTQVTVSA	121
SC17.87	EVQLQQSGAELLKPGASVKLSCTAS	GLNIKDYY	IHWVYQRPEQGLEWIGR	IDPESDNT	LYDPKFQGKASITADTSSNTAYLQLSSLTSEDTAVYYC	TTNTPFAYWGQGTLVTVST	123
SC17.89	QVQLQQSGAELVRPGTSVKVSCKTS	GYAFTNYL	IEWVKQRPGQGLEWIGV	INPGSGGT	NYNEKFKVKATLTADKSSSTAYMQLTSLTSDDSAVYFC	TRRDGYFFPWFAYWGQGTLVTVSA	125
SC17.90	QVQLQQPGSVLVRPGASVKLSCKAS	GYTFTSYW	MHWVKQRPGQGLEWIGE	IHPNNGST	NYNEKFKGKATLTVDTSSSTAYVDLSSLTSEDSAVYYC	ARWTLFTYWGQGTLVTVSA	127
SC17.91	EVQLVESGGGLVKPGGSRKLSCAAS	GFTFSDYG	MHWVRQAPEKGLEWVAY	ISRGSSTI	HYADTVKGRFTISRDNAKNTLFLQMTSLRSEDTAMYYC	ARPFNWYFDVWGAGTTVTVSS	129
SC17.93	QVQLQQPGAELVKPGASVMLSCKAS	GYTFTSYW	VHWVKQRPGQGLEWIGV	INPRNGRN	NYNEKFKTKATLTVDKSSSTAYMQLSSPTSEDSAVYYC	AREDYDGGDYAMDYWGQGTSVTVSS	131
SC17.95	EVELQQSGPELVKPGASVKISCKTS	GNTYTEYT	MQWVKLSHGKSLEWIGG	INPNNGIT	SYNQKFKGKATLTVDKSSSTAYMELRSLKSEDSAVYYC	ARAGLGNYVWAMDYWGQGASVTVSS	133
SC17.97	QVQLPQSGAELAKPGASVKISCKAS	GFTFTSYW	MHWVKQRPGQGLEWIGY	INPSTDYT	EYNQKFKDKATLTADKSSSTAYMQLGSLTSEDSAVYYC	ARSSYGSSPFDYWGQGSTLTVSS	135
SC17.99	EVKLEESGGGLVQPGGSMKLSCAAS	GFTFSDAW	MDWVRQSPEKGLEWVAE	IRSKANNHAT	YYAESVKGRFTISRDDSKSSAYLQMNSLRAEDTGIYYC	VSTGTSYWGQGTLVTVSA	137
SC17.102	EVQLQQSGPELMKPGASVKMSCKAS	GDTFTDYN	IHWVKQNQGKSLEWIGE	VNPNIGGI	GYNQKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYC	AMGRWYFDVWGAGTTVTVSS	139

FIG. 10B (Cont.)

Protein Sequences of Exemplary Murine SEZ6 Modulator Heavy Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
SC17.114	EVQLQQSGPEMVKPGASVKISCKA	GYTFTDYY	MHWVKQSHGKSLEWIGR	VNTNNGGT	SYDQKFEGKATLTVDKSSSTAYMELNSLTSEDSAVYYC	VIPAWFAYWGQGTLVTVSA	141
SC17.115	QVQLQQSGSVLVRPGASVKLSCKAS	GYTFTSY	MHWVKQRPGQGLEWIGE	IHPNSGNT	NYNEKFKGKATLTVDTSSSTAYVDLSSLTSEDSAVYYC	AGGNYDYWGQGTTLTVSS	143
SC17.120	EVQLEQSGTVLARPGASVKMSCKAS	GYTFTSYW	MHWVKQRPGQGLEWIGA	FYPGNSGT	YYNQKFKDKAKLTAVTSASTAYMELSSLTNEDSAVYYC	SRSGSGRFAYWGQGTLVTVSA	145
SC17.121	EVQLQQSGPELMKPGASVKMSCKAS	GYTFTDHN	IHWVKQHQGKSLEWIGE	INPNTGGT	GYNQKFQGKATMTVDKSSSTAYMELRSLTSEDSAVYYC	VRGLYFFDYWGQGTTLTVSS	147
SC17.122	EVHLVESGGDLVKPGGSLKLSCAAS	GFTFSSYG	MSWVRQTPDKRLEWVAT	ISSGGTYT	YYPDSVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYC	SRHGWGWGQGTLVTVSA	149
SC17.140	EVQLQQSGPELMKPGASVKMSCKAS	GYTFTDYN	MHWVKQNQGKSLEWIGE	INPNTGGT	GYNQKFKGKATLTVDKFSSTAFIELRSLTSEDSAIYYC	TRGGYDHYWYFDVWGAGTTVTVSS	151
SC17.151	EVQLQQSGTVLARPGASVKMSCKA	GYTFTSYW	MHWVKQRPGQGLEWIGA	IYPGKNDT	TYNQKFKGKAKLTAVTSASTLYMELSSLTNEDSAVYYC	TRSGKGYFAYWGQGTLVTVSA	153
SC17.156	QVTLKESGPGILQPSQTLSLTCSFS	GFSLSTSGMGV	VSWIRKTSGKGLEWLAH	IFWDDDK	WYNPSLKSRLTISKATSSNQVFLILTSVDTADTATYYC	ATFYGLYFAYWGQGTTLTVSS	155
SC17.161	EVKLEESGGGLVQPGGSMKLSCAAS	GFTFSDAW	MDWVRQSPEKGLEWVAE	IRSKPNNHAT	YYAESVKGRFTISRDDSKSSAYLQMNSLRAEDTGIYYC	VSTGTSYWGQGTLVTVSA	157
SC17.166	EVQLQQSGPELMKPGASVKMSCKAS	GYIFTDYN	MHWVKQNQGKSLEWIGE	VNPNTGGI	GYNQKFKGKATLTVDKSSSTAYMDLRSLTSEDSAVYYC	ARDGNYCFDYWGQGTTLTVSS	159
SC17.187	EVHLQQSGPELVNPGSSVKISCKAA	GYTFTDYN	MDWVKQSHGKRLEWIGN	IYPNNGGA	GYNQNFKDKATLTVDKSSSTAYMELRSLTSEDSAVYYC	ARSITAAWFAYWGQGTLVTVSA	161
SC17.191	EVQLQQSGPELMKPGASVKMSCKAS	GYTFTDYN	MHWVKQNQGKSLEWIGE	INPNTGGT	GYNQKFKDKATLTVDKSSSTAYMELRSLTSEDSAVYYC	ARIPSLRRYYFDYWGQGTTLTVSS	163
SC17.193	QVTLKESGPGILQPSQTLSLTCSFS	GFSLITYGIG	VGWIRQPSGKGLEWLAH	IWWNDNK	YYNTALKSRLTISKDTSNNQVFLKIANVDTADTATYYC	ARMVYYDYDGGFAYWGQGTLVTVSA	165
SC17.199	EVQLQQSGTVLARPGASVRMSCKAS	GYTFTSYW	MHWVKQRPGQGLEWIGA	IYPGNSDT	SYNHKFKGKAKLTAVTSASTAYMELSSLTNEDSAVYYC	TRSGTGWFAYWGQGTLVTVSA	167
SC17.200	QVQLQQSGPELVKPGASVKISCKAS	GYAFSSSW	INWVKQRPGQGLEWIGR	IYPGEGDT	NYSGNFEGKATLTADKSSTTAYMQLSSLTSVDSAVYFC	TRGLVMDYWGQGTALTVSS	169

FIG. 10B (Cont.)

Protein Sequences of Exemplary Humanized SEZ6 Modulator Heavy Chain Variable Regions

mAb	FW1	CDRH1	FW2	CDRH2	FW3	CDRH3	SEQ ID NO.
hSC17.16	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTDYN	MYWVRQAPGQGLEWMGE	INPNNGGT	AYNQKFRGKVTMTRDTSISTAYMELSRLRSDDTAVYYC	ARYDKGFDYWGQGTTVTVSS	171
hSC17.17	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTDYN	MHWVRQAPGQGLEWMGE	INPNIGGT	GYNQKFKGRVTMTRDTSISTAYMELSRLRSDDTAVYYC	ARTYSYYSYEFAYWGQGTLVTVSS	173
hSC17.24	EVQLVQSGAEVKKPGATVKISCKVS	GYTFTDHT	IHWVRQAPGKGLEWIGY	IYPRDGST	KYNEEFKGRVTITADTSTDTAYMELSSLRSEDTAVYYC	ARSYSNYFDYWGQGTTVTVSS	175
hSC17.28	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTRSY	IHWVRQAPGQGLEWMGY	ISSGSGGT	TYNQKFKGRVTSTRDTSISTAYMELSRLRSDDTAVYYC	ARGGVRYFDVWGQGTTVTVSS	177
hSC17.34	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTDYN	MDWVRQAPGQRLEWIGY	IYPDNGGA	GYNQKFKGRVTITVDTSASTAYMELSSLRSEDTAVYYC	SRSITTAWFAYWGQGTLVTVSS	179
hSC17.46	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTSYW	INWVRQAPGQGLEWIGN	IFPDTTTT	NYNEKFKGRVTLTRDTSISTAYMELSRLRSDDTAVYYC	AREYYDGTYDAMDYWGQGTLVTVSS	181
hSC17.151	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTSYW	MHWVRQAPGQGLEWMGA	IYPGKSDT	TYNQKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARSGKGYFAYWGQGTLVTVSS	183
hSC17.155	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFNSYW	MHWVRQAPGQGLEWMGE	IHPNNGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	185
hSC17.156	QVTLKESGPVLVKPTETLTLTCTVS	GFSLSTSGMG	VSWIRQPPGKALEWLAH	IFWDDDK	WYNPSLKSRLTISKDTSKSQVVLTMTNMDPVDTATYYC	ATFYGLYFAYWGQGTLVTVSS	187
hSC17.161	QVQLVQSGAEVKKPGASVKVSCKAS	GFTFSDAW	MDWVRQAPGQRLEWMGE	IRSKPNNHAT	YYAESVKGRVTITRDTSASTAYMELSSLRSEDTAVYYC	ARTGTSYWGQGTLVTVSS	189
hSC17.200	EVQLVQSGAEVKKPGESLKISCKGS	GYSFTSYW	INWVRQMPGKGLEWMGR	IYPGEGDT	NYSGNFEGQVTISADKSISTAYLQWSSLKASDTAMYYC	TRGLVMDYWGQGTLVTVS	191
hSC17.155vH1	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFDSYW	MHWVRQAPGQGLEWMGE	IHPNNGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	193
hSC17.155vH2	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFTSYW	MHWVRQAPGQGLEWMGE	IHPNNGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	194
hSC17.155vH3	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFNYYW	MHWVRQAPGQGLEWMGE	IHPNNGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	195
hSC17.155vH4	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFNSYW	MHWVRQAPGQGLEWMGE	IHPNDGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	196
hSC17.155vH5	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFNSYW	MHWVRQAPGQGLEWMGE	IHPNGGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	197
hSC17.155vH6	QVQLVQSGAEVKKPGASVKVSCKAS	GYTFNSYW	MHWVRQAPGQGLEWMGE	IHPNSGST	NYNEKFKGRVTMTRDTSTSTVYMELSSLRSEDTAVYYC	ARWTLFTYWGQGTLVTVSS	198
hSC17.161vH1	EVQLVESGGGLVQPGGSLRLSCAAS	GFTFSDAW	MDWVRQAPGKGLEWVGE	IRSKPNNHAT	YYAESVKGRFTISRDDSKNSLYLQMNSLKTEDTAVYYC	ARTGTSYWGQGTLVTVSS	199

FIG. 10B (Cont.)

SEZ6 Modulator Characteristics

Clone	Bin	Hu Affinity (Kd, nM)	Mouse XR	Rat XR (Kd, nM)	Cyno XR	SEZ6L XR	SEZ6L2 XR
SC17.3	D	N.D.	No	No	N.D.	No	No
SC17.4	A	N.D.	No	No	N.D.	No	No
SC17.6	B	<1	Yes	Yes (<1)	N.D.	No	Yes
SC17.7	A	N.D.	Yes	No	No	Yes	Yes
SC17.17	U	1.8	No	Yes (5.0)	Yes	No	No
SC17.19	E	5.3	Yes	Yes	N.D.	No	Yes
SC17.24	C	5.1	Yes	No	Yes	No	No
SC17.26	F	62.0	Yes	Yes (17.4)	Yes	No	Yes
SC17.28	U	22.1	No	Yes (31)	N.D.	No	Yes
SC17.34	A	15.1	No	Yes (79.5)	Yes	No	No
SC17.36	A	6.3	No	No	Yes	No	No
SC17.42	A	2.7	Yes	Yes (3.0)	No	No	No
SC17.45	A	17.4	No	No	Yes	No	No
SC17.46	E	N.D.	No	No	No	No	No
SC17.49	U	23.1	No	No	N.D.	No	No

FIG. 11A

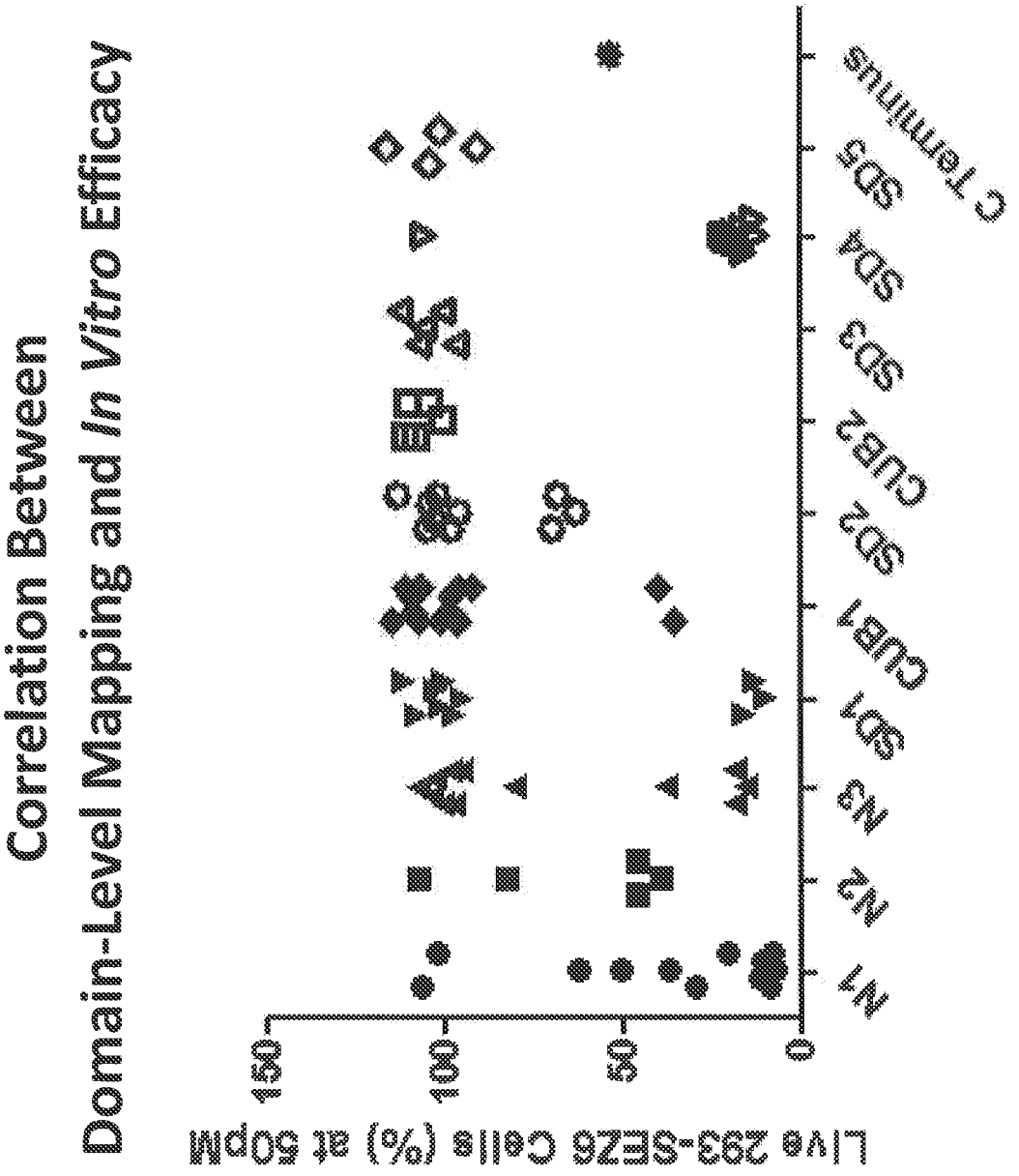

Correlation Between
Domain-Level Mapping and In Vitro Efficacy
Live 293-SEZ6 Cells (%) at 50pM
150
100
50
0
N1
N2
N3
SD1
CUB1
SD2
CUB2
SD3
SD4
SD5
C Terminus

FIG. 11B

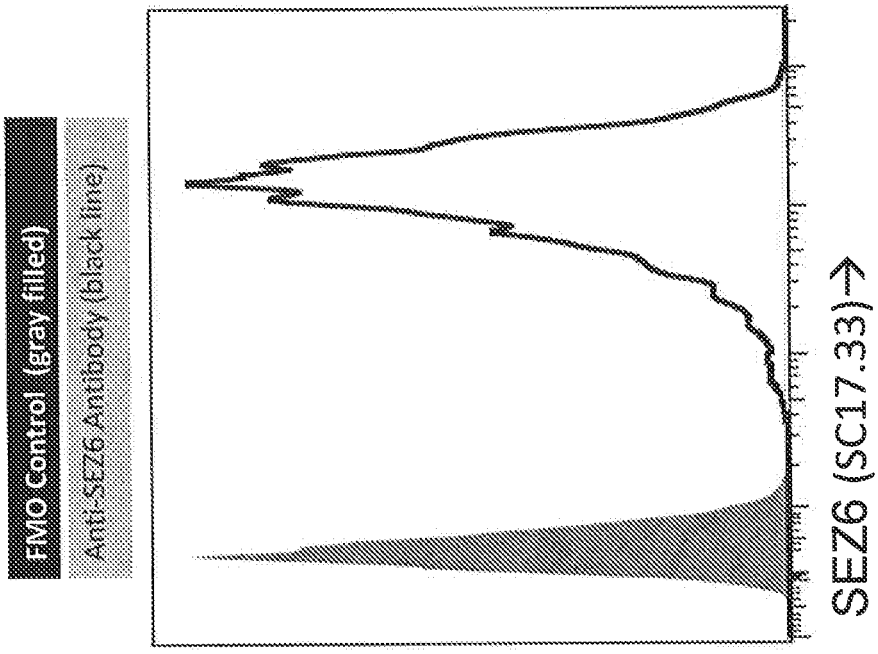

Detection of SEZ6 Surface
Expression on Engineered HEK-293 Cells
FMO Control (gray filled)
Anti-SEZ6 Antibody (black line)
SEZ6 (SC17.33)→

FIG. 12A

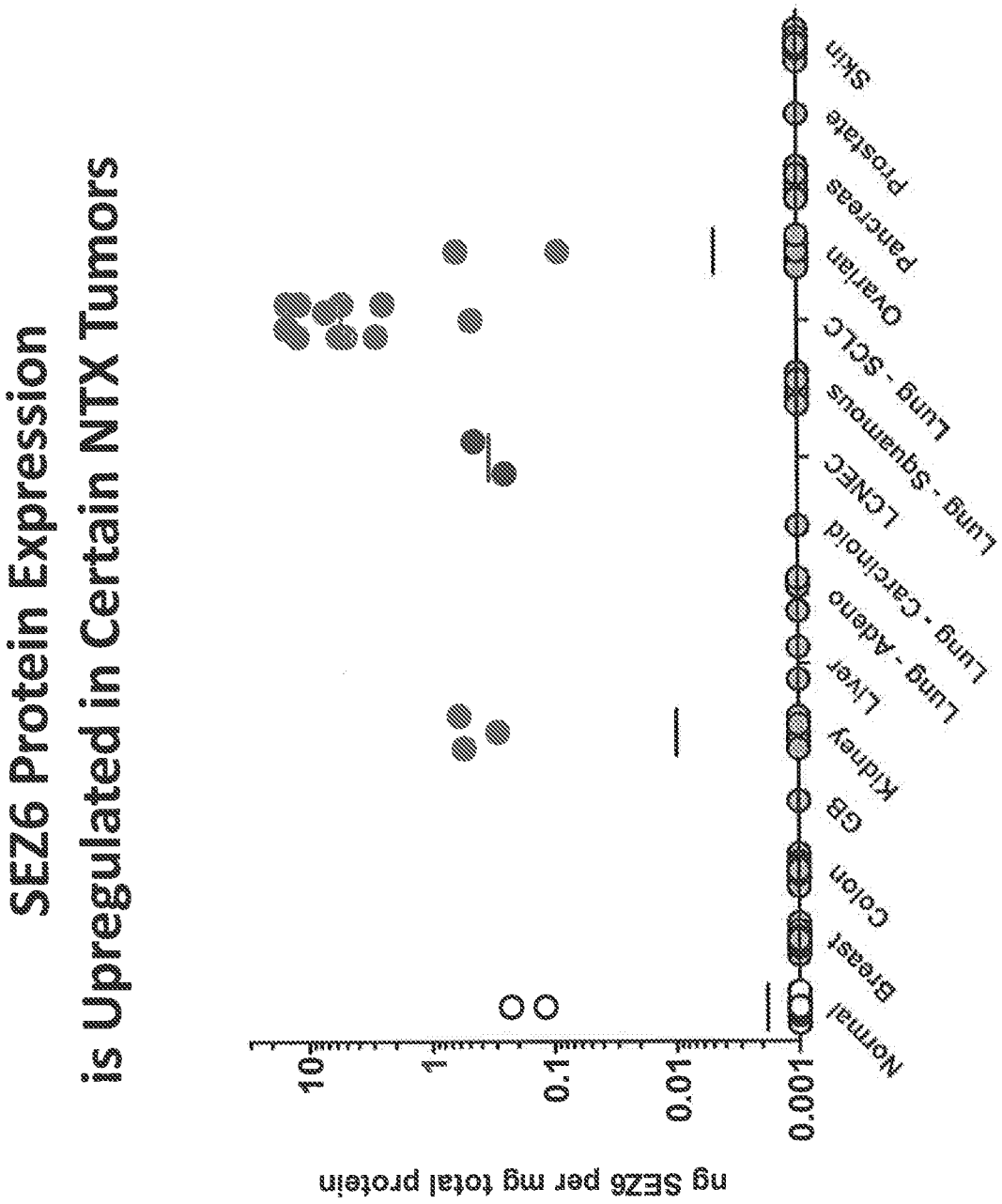
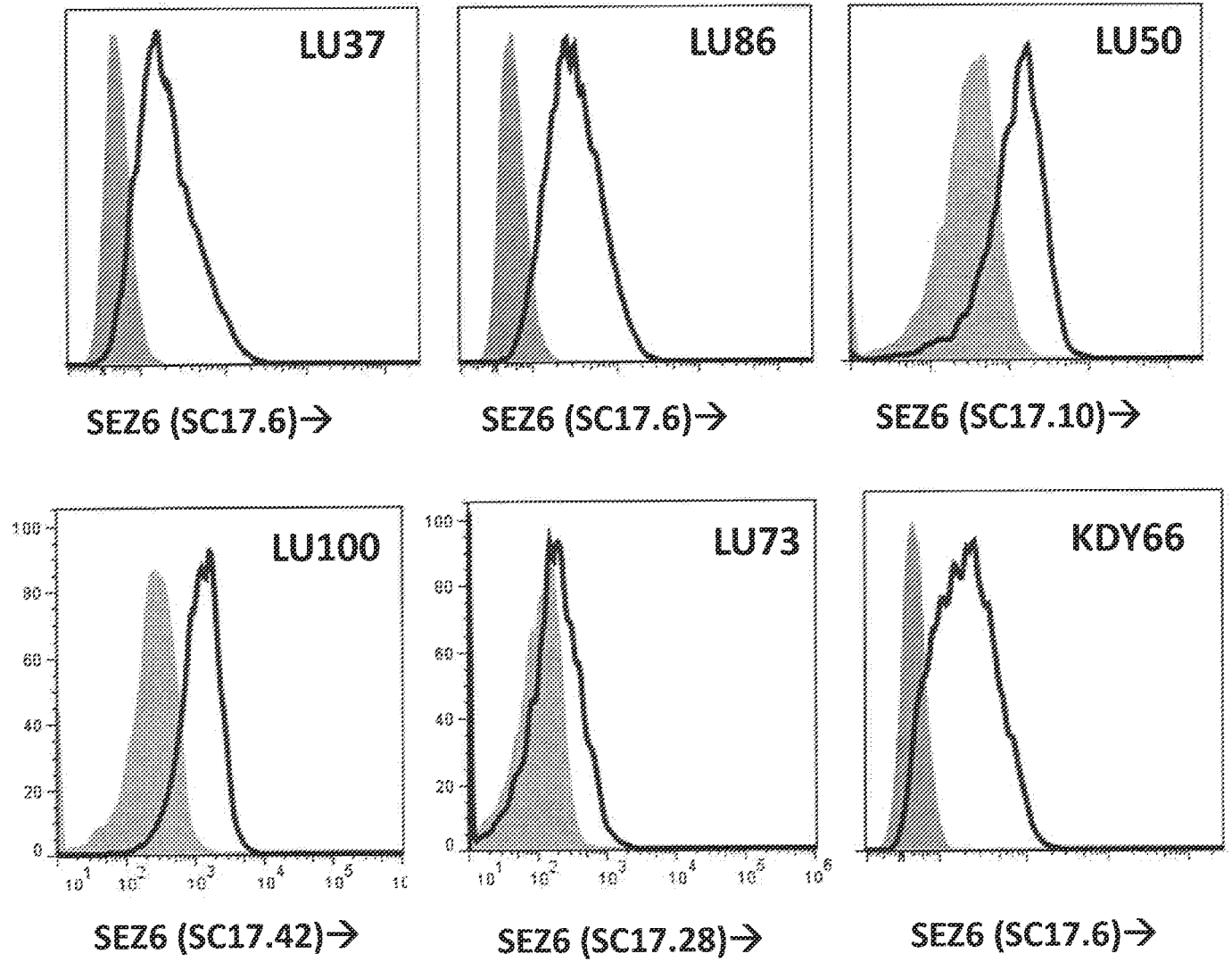

SEZ6 Protein Expression
is Upregulated in Certain NTX Tumors
ng SEZ6 per mg total protein
10
1
0.1
0.01
0.001
Normal
Breast
Colon
GB
Kidney
Liver
Lung - Adeno
Lung - Carcinoid
LCNEC
Lung - Squamous
Lung - SCLC
Ovarian
Pancreas
Prostate
Skin

FIG. 12B

Selected SEZ6 Modulators Detect Surface Expression of SEZ6 in NTX Tumors



FMO (gray filled)

Anti-SEZ6 Antibody (black line)

Tumor Line	FMO (MFI)	Tumor (MFI)
LU37	29.4	199
LU86	95.1	810
LU50	37.3	300
LU100	289	1400
LU73	112	237
KDY66	22.6	192

FIG. 13A

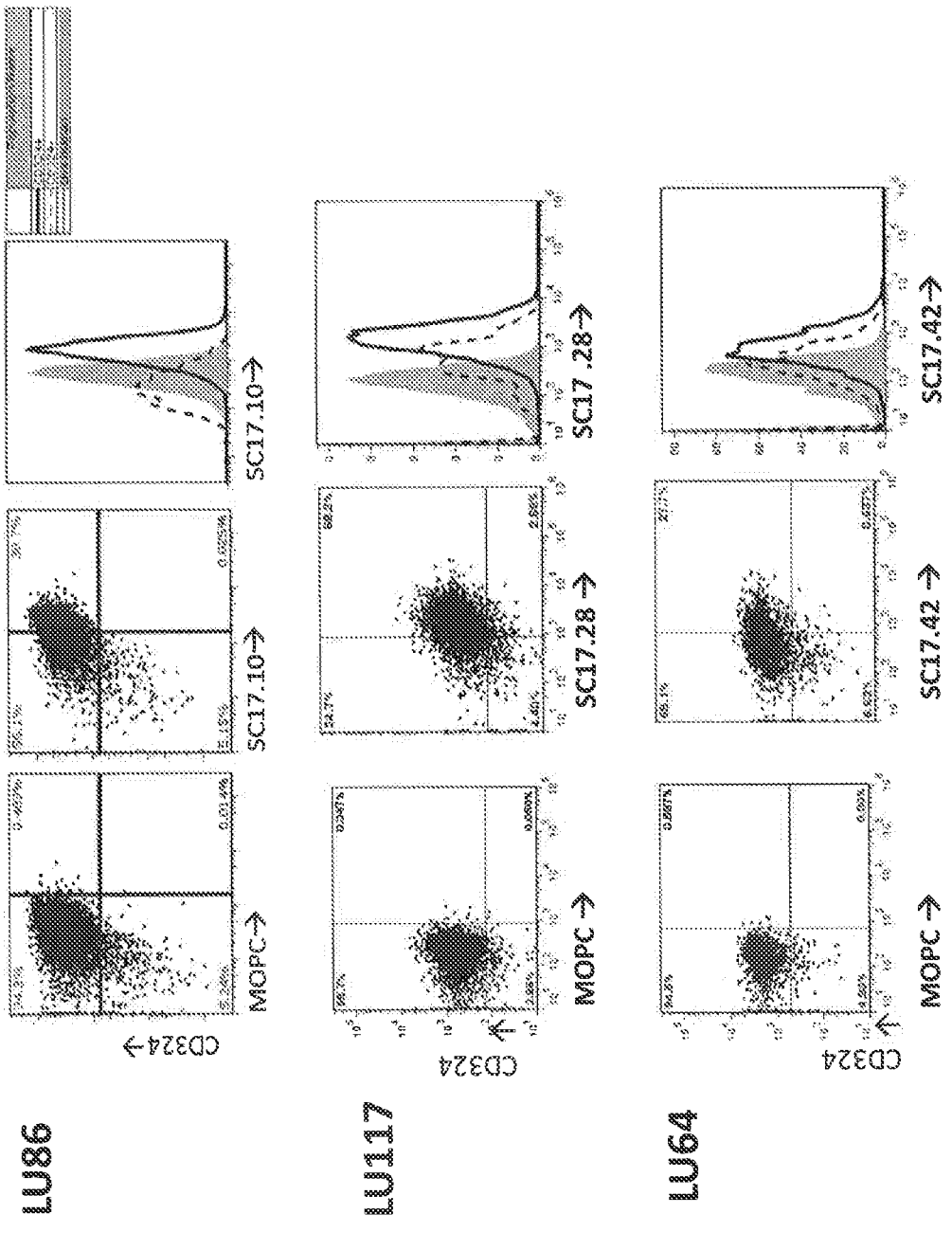

SEZ6 Protein is a Biomarker of CSCs as Determined by FACS
LU86
LU117
LU64
CD324
MOPC→
SC17.10→
SC17.28→
SC17.42→

FIG. 13B

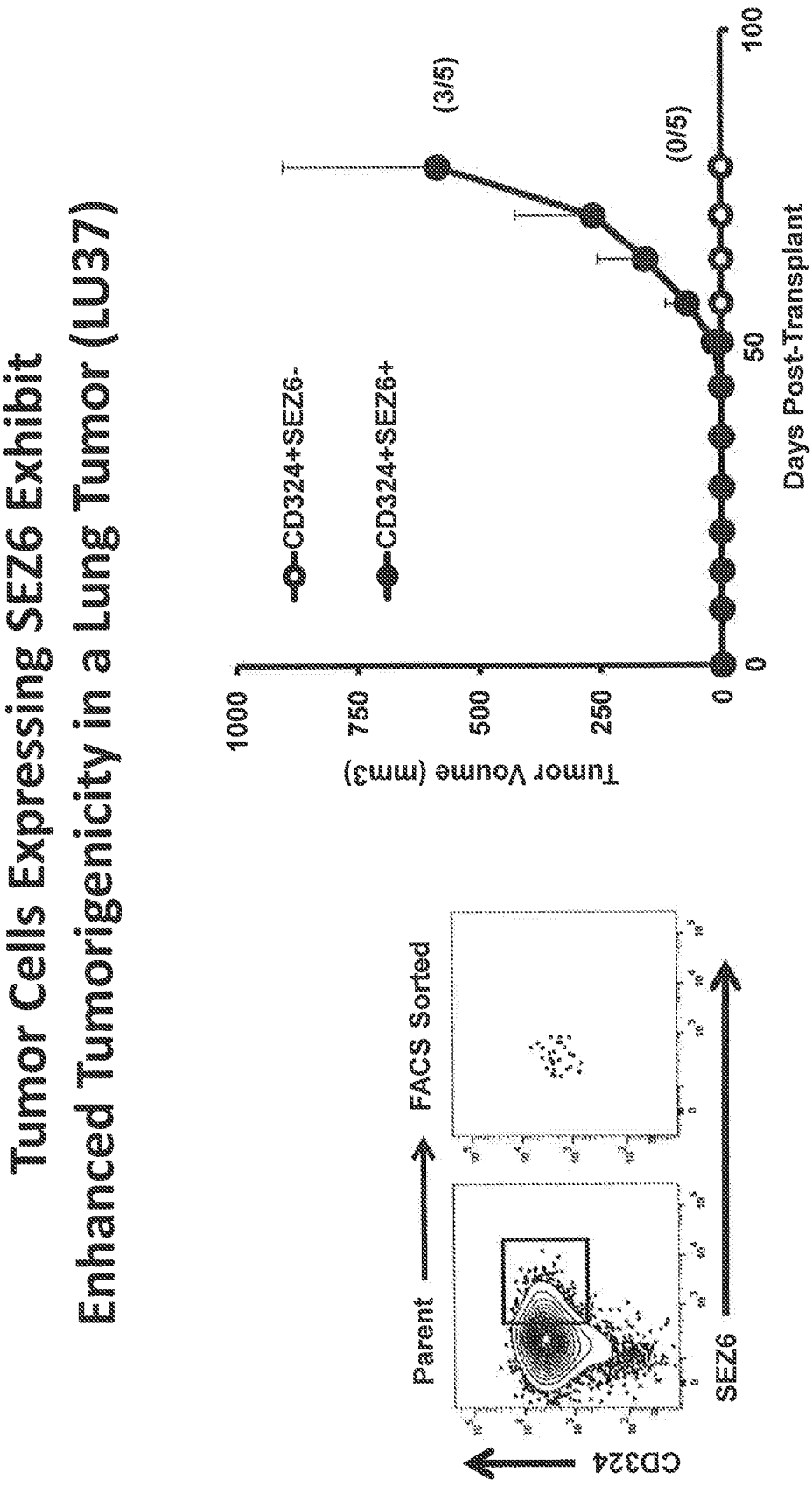


FIG. 14A

FIG. 14B

SEZ6 Modulators Facilitate Delivery of Cytotoxic Agents to SEZ6-Expressing HEK-293T Cells

Clone	100pM	50pM	10pM
IgG1	103.1	ND	94.3
IgG2a	97.3	100.4	94.7
IgG2b	102.3	ND	96.9
SC17.1	26.3	ND	70.1
SC17.3	16.9	ND	38.5
SC17.4	18.7	ND	34.7
SC17.6	8.8	ND	14.3
SC17.7	23.9	ND	49.4
SC17.8	15.2	ND	22.8
SC17.9	13.8	ND	24.4
SC17.10	56.6	ND	92.2
SC17.11	23.8	ND	64.5
SC17.12	112.4	ND	111.7
SC17.13	107.0	ND	103.4
SC17.14	34.9	ND	71.8
SC17.15	95.1	ND	110.6
SC17.17	11.3	12.8	21.4
SC17.18	59.3	ND	89.6
SC17.19	9.2	ND	14.4
SC17.21	36.4	ND	62.7
SC17.22	46.9	ND	68.9
SC17.23	13.3	ND	38.0
SC17.24	49.5	ND	77.5
SC17.25	58.7	ND	88.8
SC17.26	13.4	ND	15.6
SC17.27	21.7	ND	33.6
SC17.28	12.8	ND	17.9
SC17.29	112.4	ND	103.3
SC17.30	22.6	ND	50.0
SC17.31	47.0	ND	87.4
SC17.32	104.7	ND	122.9
SC17.33	10.4	ND	17.6
SC17.34	8.8	ND	16.7
SC17.35	15.9	ND	41.8
SC17.36	9.8	ND	12.9
SC17.37	78.4	ND	92.2
SC17.38	104.9	ND	104.8
SC17.39	121.7	ND	121.8
SC17.40	9.6	ND	11.3
SC17.41	60.3	ND	98.1
SC17.42	58.5	ND	91.7
SC17.43	21.5	ND	36.8
SC17.44	47.3	ND	86.3
SC17.45	11.1	ND	12.6
SC17.46	12.7	16.3	23.6
SC17.47	15.0	ND	39.2
SC17.49	21.3	ND	39.3
SC17.50	102.7	ND	109.9
SC17.51	105.4	ND	102.1
SC17.52	8.2	ND	8.6
SC17.53	111.6	ND	99.9
SC17.54	77.0	ND	99.6
SC17.55	11.0	ND	28.9
SC17.56	12.4	ND	16.5
SC17.57	111.7	ND	103.0
SC17.58	102.3	ND	95.1
SC17.59	111.4	ND	114.5
SC17.60	110.8	ND	101.2
SC17.61	114.0	ND	113.7
SC17.72	ND	101.3	ND
SC17.73	ND	96.4	ND
SC17.74	ND	105.1	ND
SC17.75	ND	108.3	ND
SC17.76	ND	99.6	ND
SC17.81	ND	62.8	ND
SC17.82	ND	97.7	ND
SC17.83	ND	95.4	ND
SC17.84	ND	107.8	ND
SC17.86	ND	111.7	ND
SC17.87	ND	100.9	ND
SC17.88	ND	97.8	ND
SC17.89	ND	17.0	ND
SC17.90	ND	105.4	ND
SC17.91	ND	104.0	ND
SC17.92	ND	107.4	ND
SC17.93	ND	106.3	ND
SC17.95	ND	113.0	ND
SC17.96	ND	53.5	ND
SC17.97	ND	111.9	ND
SC17.99	ND	18.8	ND
SC17.100	ND	97.0	ND

FIG. 15A

SEZ6 Modulators Facilitate Delivery of Cytotoxic Agents to SEZ6-Expressing HEK-293T Cells

Clone	100pM	50pM	10pM
SC17.101	ND	50.7	ND
SC17.102	ND	13.6	ND
SC17.103	ND	111.4	ND
SC17.104	ND	39.4	ND
SC17.105	ND	115.2	ND
SC17.106	ND	116.6	ND
SC17.107	ND	36.0	ND
SC17.108	ND	104.7	ND
SC17.109	ND	108.3	ND
SC17.112	ND	102.7	ND
SC17.114	ND	11.4	ND
SC17.115	ND	10.7	ND
SC17.116	ND	95.4	ND
SC17.117	ND	107.4	ND
SC17.119	ND	111.0	ND
SC17.120	ND	9.1	ND
SC17.121	ND	16.2	ND
SC17.122	ND	107.1	ND
SC17.124	ND	109.9	ND
SC17.125	ND	98.7	ND
SC17.129	ND	102.9	ND
SC17.130	ND	80.4	ND
SC17.133	ND	108.2	ND
SC17.134	ND	37.3	ND
SC17.135	ND	99.0	ND

Clone	100pM	50pM	10pM
SC17.136	ND	92.9	ND
SC17.137	ND	15.3	ND
SC17.138	ND	107.7	ND
SC17.140	ND	22.5	ND
SC17.142	ND	101.4	ND
SC17.143	ND	97.0	ND
SC17.145	ND	100.8	ND
SC17.146	ND	96.7	ND
SC17.147	ND	108.9	ND
SC17.149	ND	45.9	ND
SC17.151	ND	8.1	ND
SC17.154	ND	102.0	ND
SC17.155	ND	15.3	ND
SC17.156	ND	19.5	ND
SC17.161	ND	18.3	ND
SC17.162	ND	30.1	ND
SC17.163	ND	106.5	ND
SC17.166	ND	19.2	ND
SC17.167	ND	103.4	ND
SC17.168	ND	46.0	ND
SC17.169	ND	109.7	ND
SC17.170	ND	108.9	ND
SC17.173	ND	68.9	ND
SC17.175	ND	15.9	ND
SC17.176	ND	82.8	ND

Clone	100pM	50pM	10pM
SC17.177	ND	102.5	ND
SC17.178	ND	102.1	ND
SC17.179	ND	70.2	ND
SC17.180	ND	21.7	ND
SC17.181	ND	101.2	ND
SC17.182	ND	10.9	ND
SC17.184	ND	63.2	ND
SC17.186	ND	105.1	ND
SC17.187	ND	13.5	ND
SC17.188	ND	21.2	ND
SC17.189	ND	98.8	ND
SC17.190	ND	91.3	ND
SC17.191	ND	17.3	ND
SC17.192	ND	103.6	ND
SC17.193	ND	21.1	ND
SC17.195	ND	38.0	ND
SC17.196	ND	106.8	ND
SC17.197	ND	7.0	ND
SC17.198	ND	108.0	ND
SC17.199	ND	21.0	ND
SC17.200	ND	9.9	ND
SC17.201	ND	40.1	ND
SC17.203	ND	96.2	ND
SC17.204	ND	114.1	ND

FIG. 15A (Cont.)

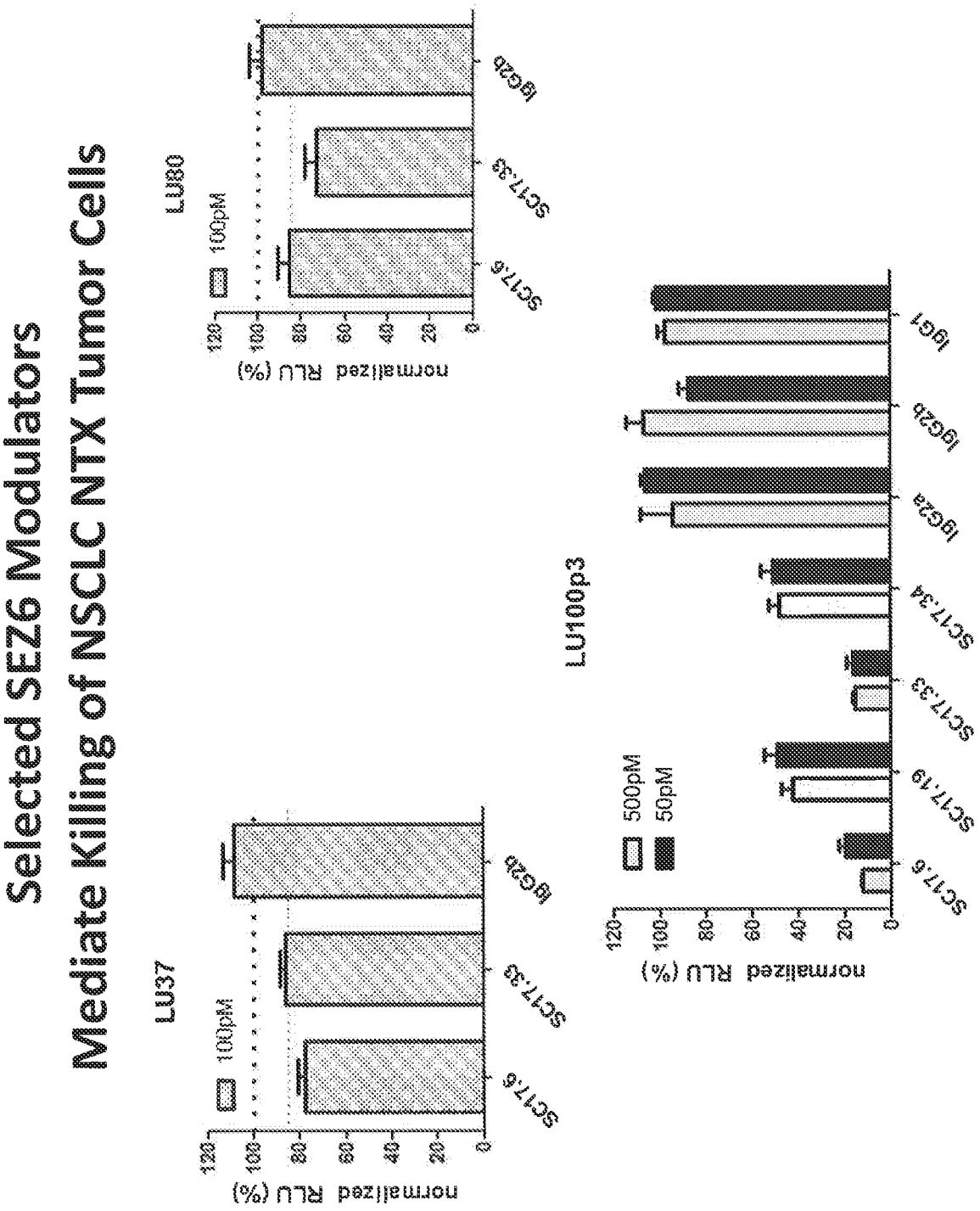

Selected SEZ6 Modulators
Mediate Killing of NSCLC NTX Tumor Cells
LU37
100pM
normalized RLU (%)
120
100
80
60
40
20
0
SC17.6
SC17.33
IgG2b
LU80
100pM
normalized RLU (%)
SC17.6
SC17.33
IgG2b
LU100p3
500pM
50pM
normalized RLU (%)
SC17.6
SC17.19
SC17.33
SC17.34
IgG2a
IgG2b
IgG1

FIG. 15B

IHC Measurements of SEZ6 Expression in Various Tumors

position	sex	age	organ	pathology	stage	Clone 140
A1	M	50	Lung	Small cell carcinoma	I	0
A2	F	51	Lung	Small cell carcinoma	I	1
A3	M	75	Lung	Small cell carcinoma	I	0
A4	F	65	Lung	Small cell carcinoma	I	0
A5	M	56	Lung	Small cell carcinoma	I	1
A6	M	53	Lung	Small cell carcinoma	II	1
A7	M	61	Lung	Small cell carcinoma	I	0
A8	M	43	Lung	Small cell carcinoma	I	1
A9	M	56	Lung	Small cell carcinoma	I	1
B1	F	62	Lung	Small cell carcinoma	I	0
B2	M	55	Lung	Small cell carcinoma	I	0
B3	M	61	Lung	Small cell carcinoma	I	0
B4	M	54	Lung	Small cell carcinoma	II	1
B5	F	66	Lung	Small cell carcinoma	II	1
B6	M	52	Lung	Small cell carcinoma	I	2
B7	M	54	Lung	Small cell carcinoma	II	1
B8	M	62	Lung	Small cell carcinoma	II	1
B9	F	40	Lung	Small cell carcinoma	II	1
C1	M	62	Lung	Small cell carcinoma	II	0
C2	M	58	Lung	Small cell carcinoma	II	1
C3	F	60	Lung	Small cell carcinoma	II	1
C4	M	58	Lung	Small cell carcinoma	II	1

position	sex	age	organ	pathology	stage	Clone 140
C5	F	67	Lung	Small cell carcinoma	II	0
C6	M	35	Lung	Small cell carcinoma	II	1
C7	M	39	Lung	Small cell carcinoma	II	1
C8	F	55	Lung	Small cell carcinoma	II	0
C9	F	52	Lung	Small cell carcinoma	II	1
D1	M	59	Lung	Small cell carcinoma	II	0
D2	M	59	Lung	Small cell carcinoma	II	3
D3	F	53	Lung	Small cell carcinoma	II	1
D4	M	61	Lung	Small cell carcinoma	IIIa	1
D5	M	70	Lung	Small cell carcinoma	IIIa	0
D6	M	60	Lung	Small cell carcinoma	II	1
D7	M	28	Lung	Small cell carcinoma	II	0
D8	M	34	Lung	Small cell carcinoma	II	2
D9	M	44	Lung	Small cell carcinoma	IIIa	0
E1	F	49	Lung	Small cell carcinoma	IIIa	3
E2	F	52	Lung	Small cell carcinoma	IIIa	0
E3	M	44	Lung	Small cell carcinoma	IIIb	3
E4	F	55	Lung	Small cell carcinoma	IIIa	1
E5	-	-	Blank	Empty core	-	XXXX
E6	M	41	Lung	Small cell carcinoma	IIIb	1
E7	M	73	Lung	Small cell carcinoma	IIIa	1
E8	M	51	Lung	Small cell carcinoma	IIIb	0
E9	M	16	Lung	Small cell carcinoma	IIIb	1

Tissue Type	0	1	2	3	Number of Cases
Primary SCLC	36%	52%	5%	7%	N=44

FIG. 16

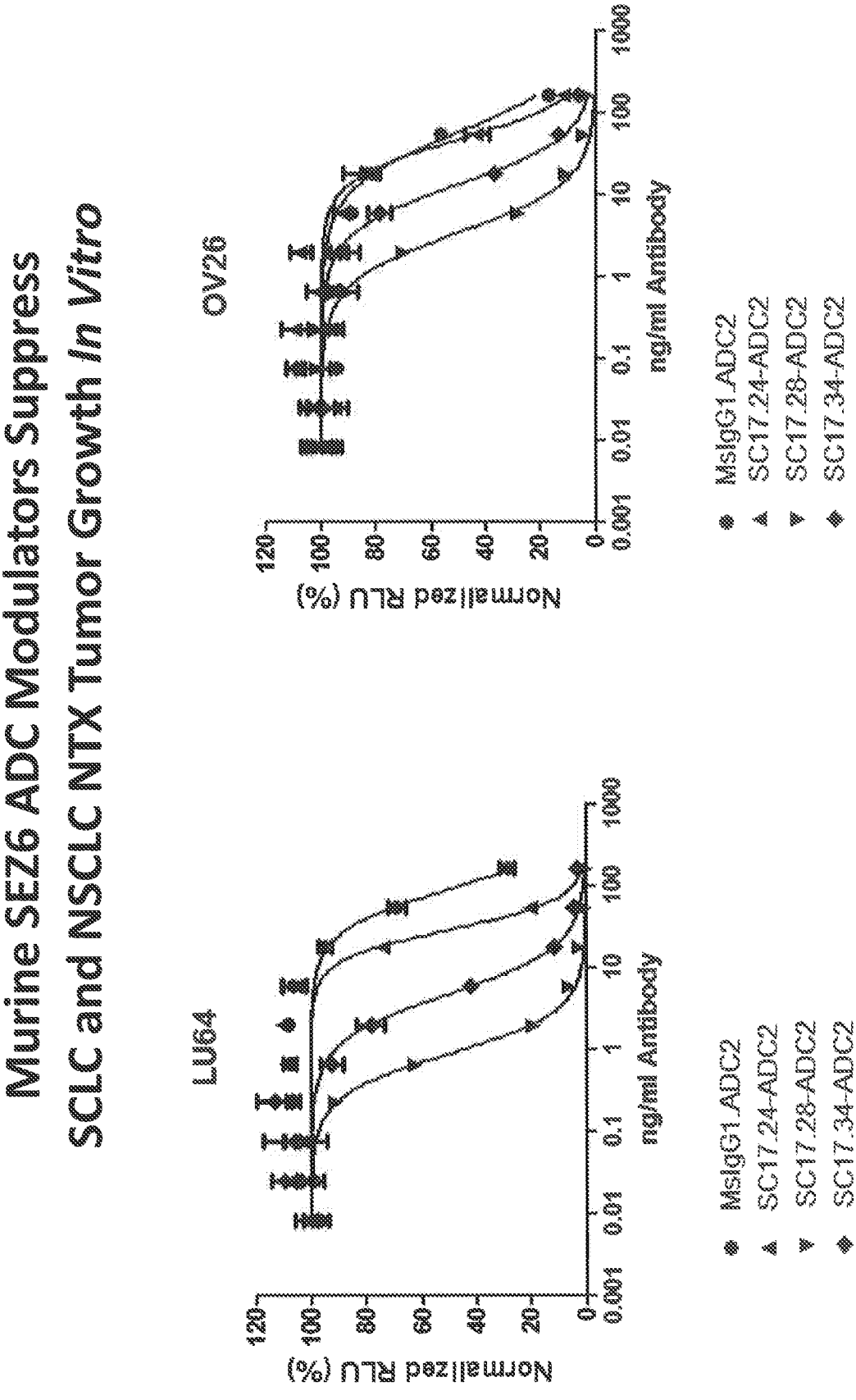

Murine SEZ6 ADC Modulators Suppress
SCLC and NSCLC NTX Tumor Growth In Vitro
LU64
OV26
Normalized RLU (%)
ng/ml Antibody
MsIgG1.ADC2
SC17.24-ADC2
SC17.28-ADC2
SC17.34-ADC2

FIG. 17A

Mouse SEZ6 ADC Modulators Suppress SCLC and NSCLC NTX Tumor Growth *In Vivo*

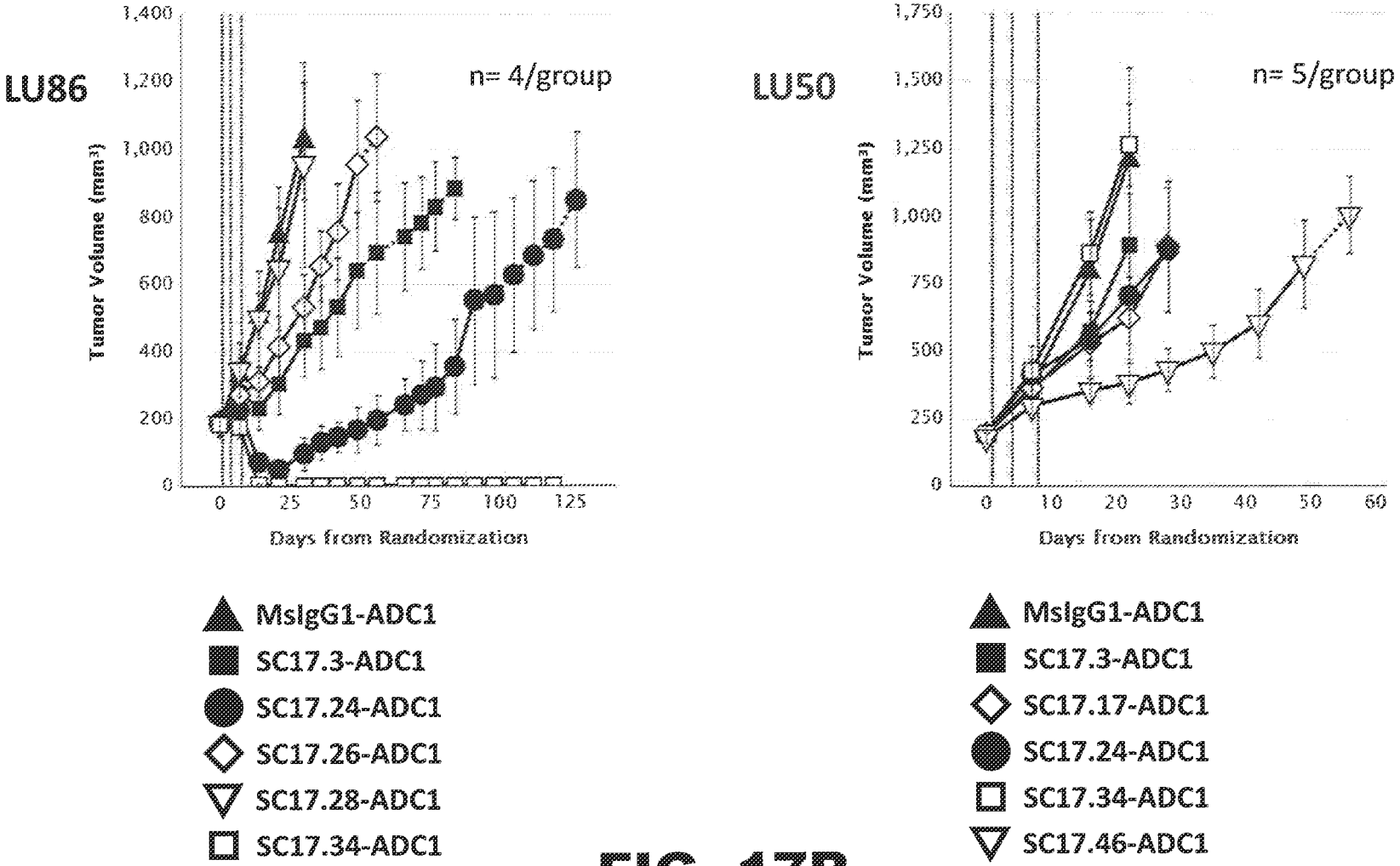


FIG. 17B

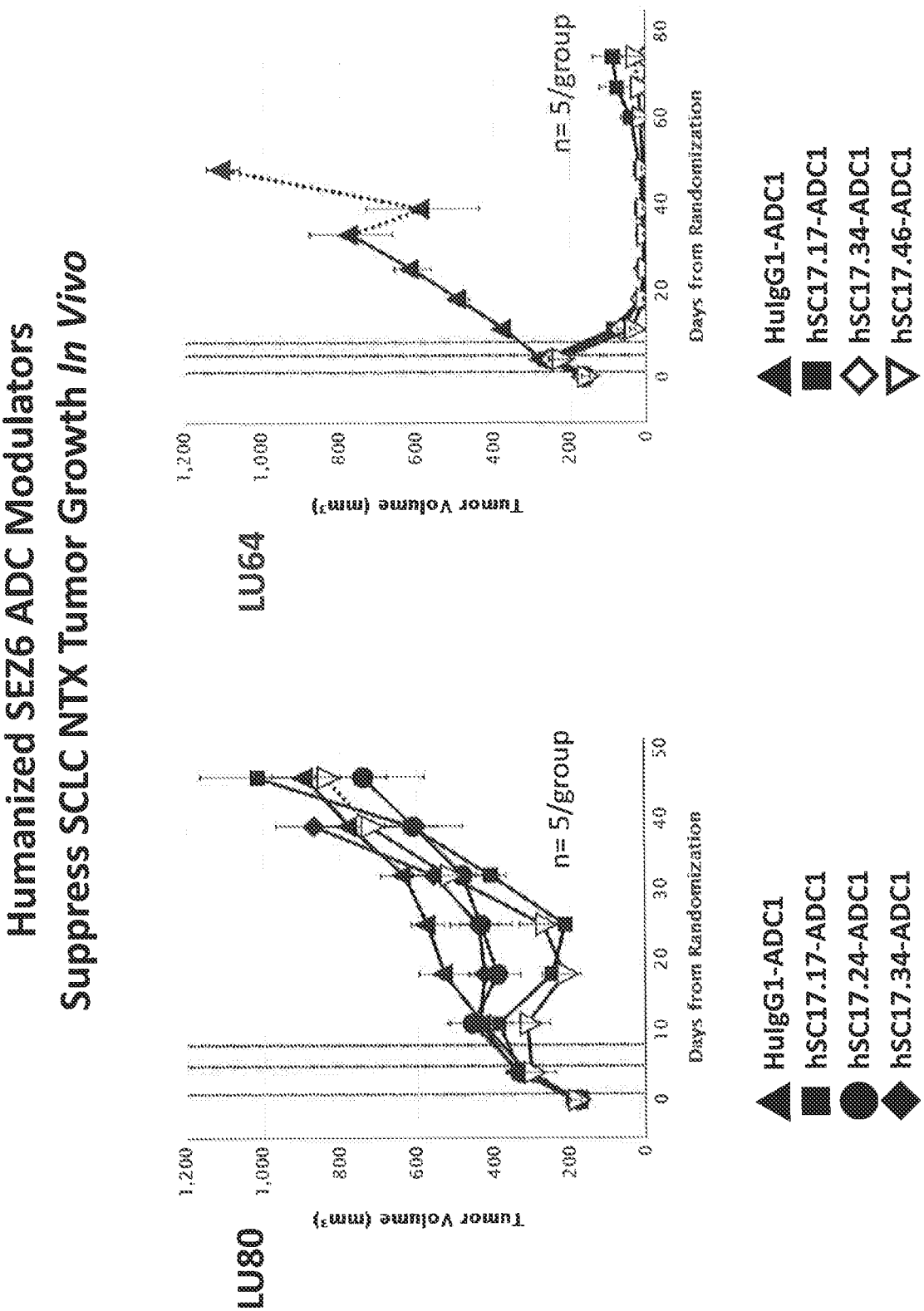

Humanized SEZ6 ADC Modulators
Suppress SCLC NTX Tumor Growth In Vivo
LU80
LU64
Tumor Volume (mm³)
Days from Randomization
n= 5/group
HulgG1-ADC1
hSC17.17-ADC1
hSC17.24-ADC1
hSC17.34-ADC1
hSC17.46-ADC1

FIG. 18A

Humanized SEZ6 ADC Modulators Show Differential Efficacy on SCLC NTX Tumor Growth *In Vivo*

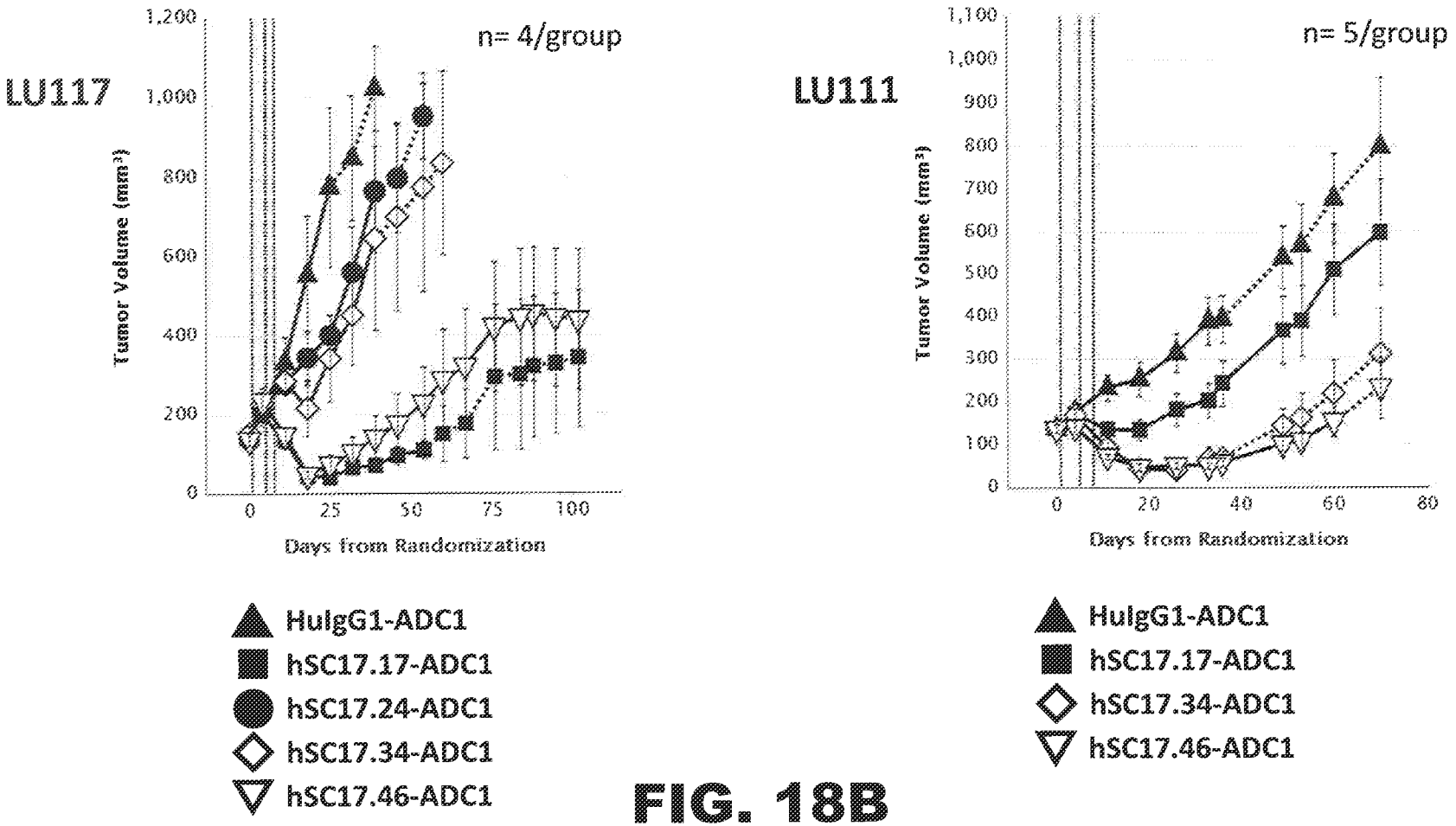


FIG. 18B