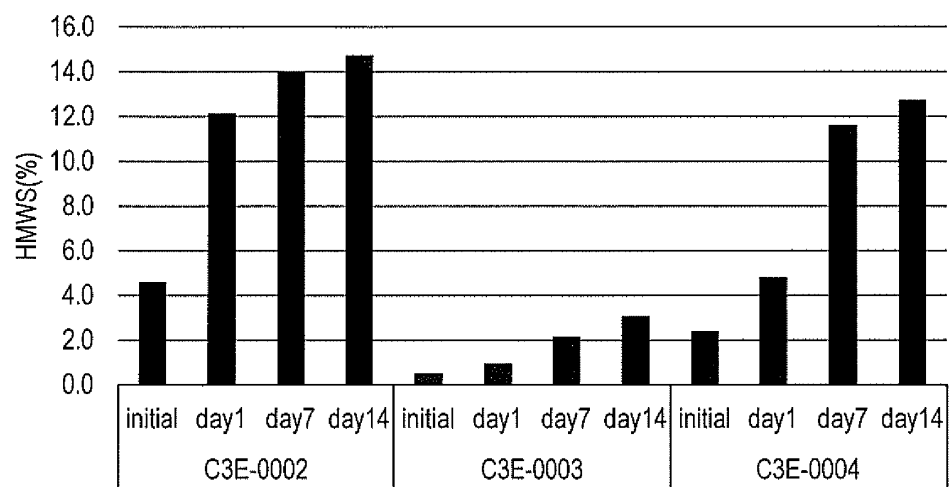
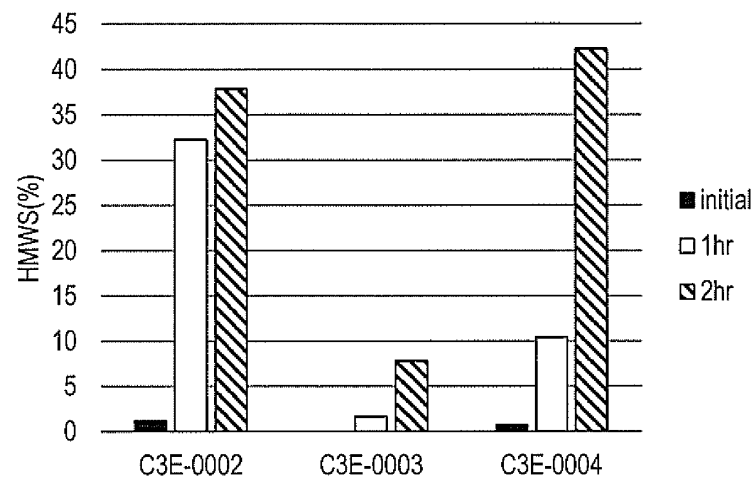


[図1]

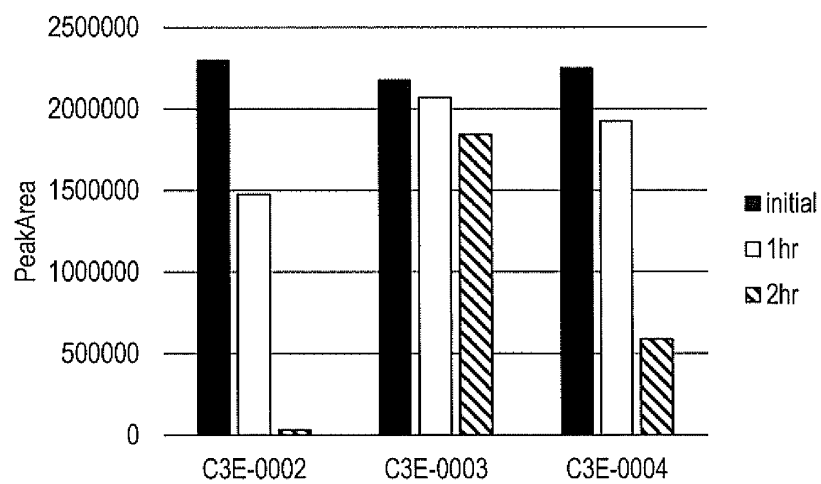


[図2]

A

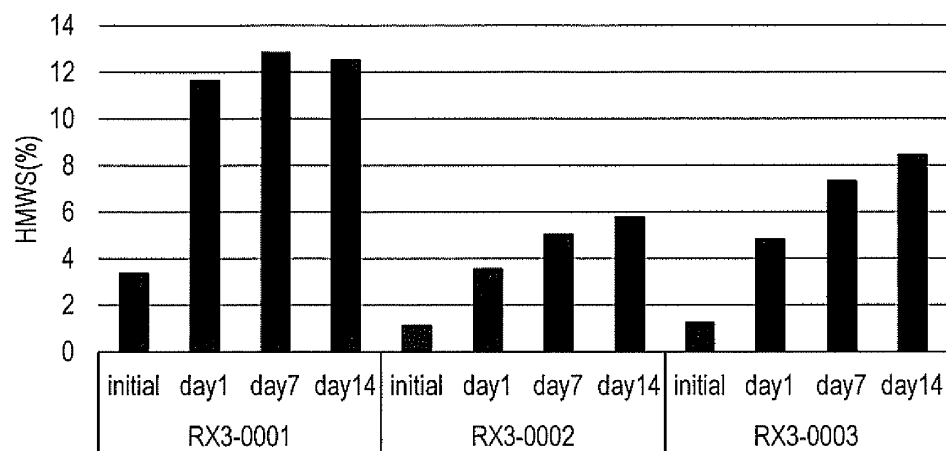


B

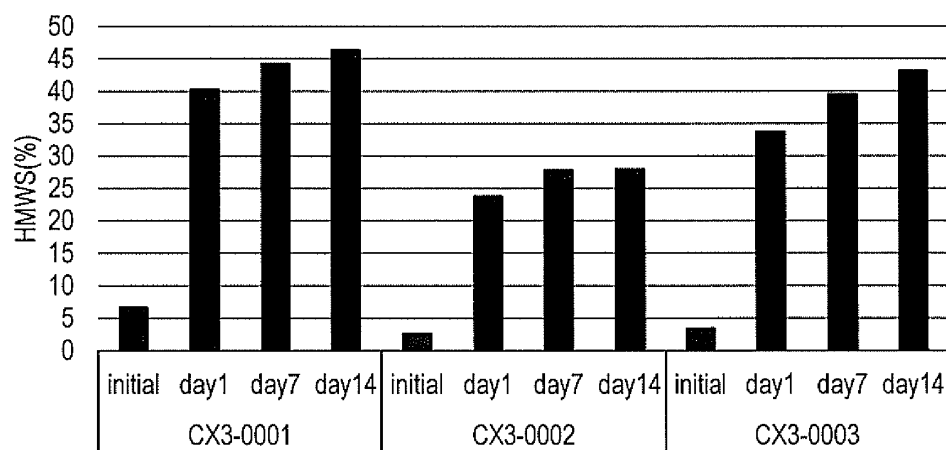


[図3]

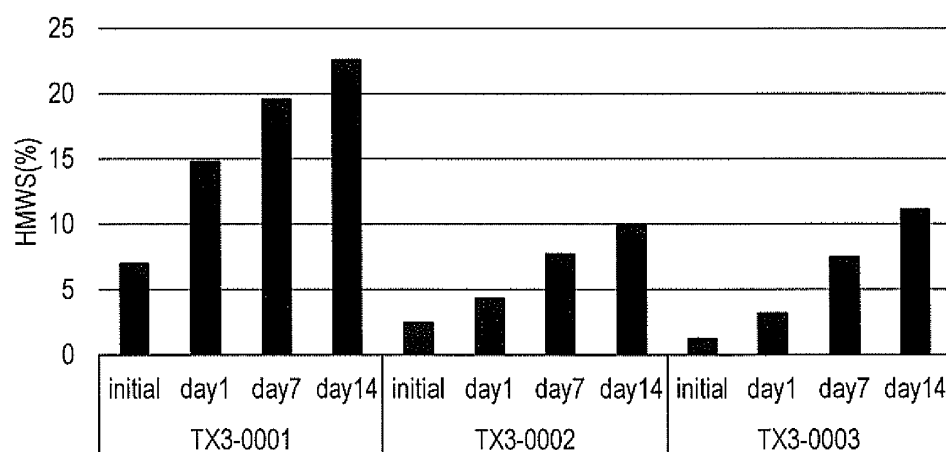
A



B

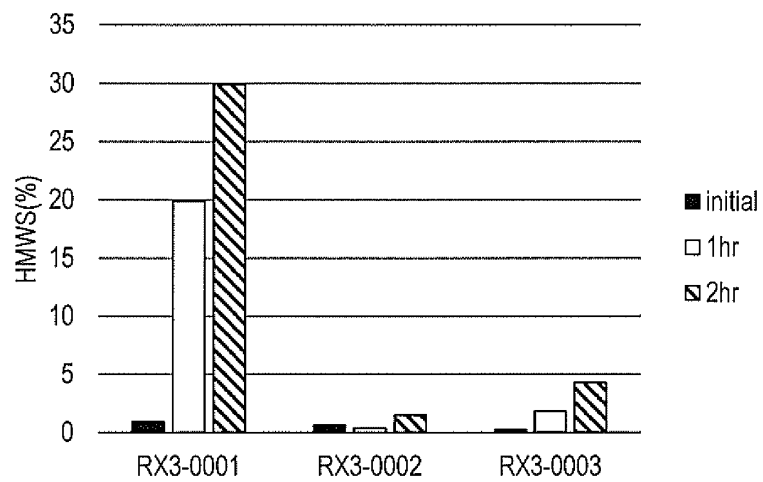


C

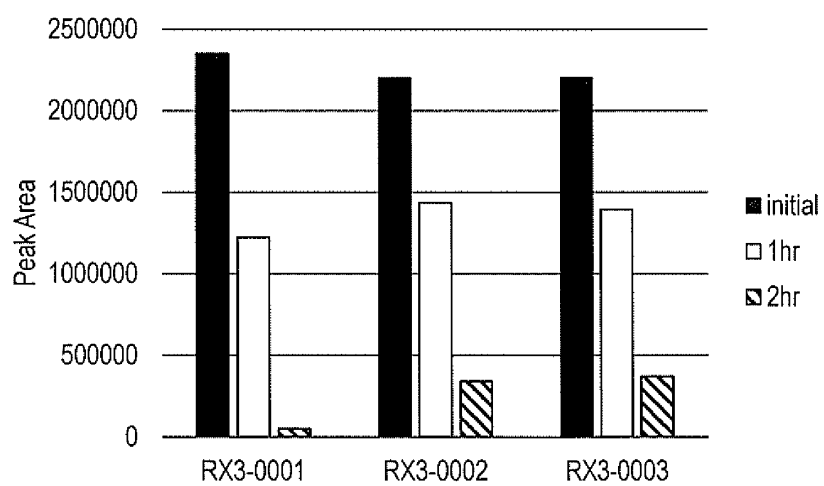


[図4-1]

A

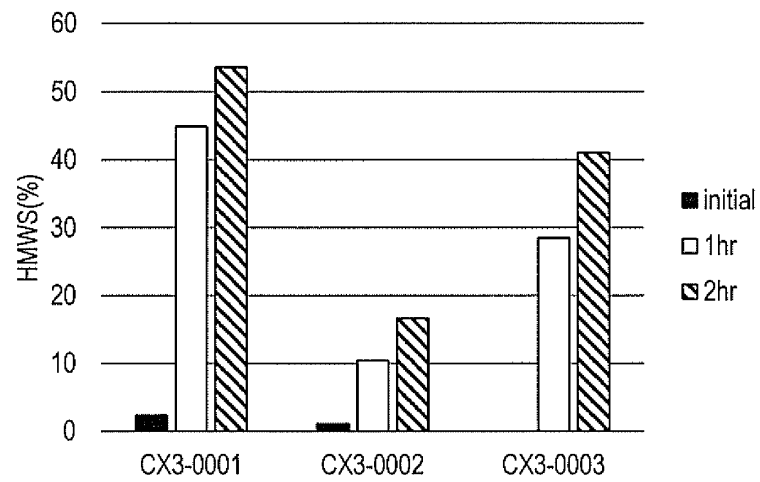


B

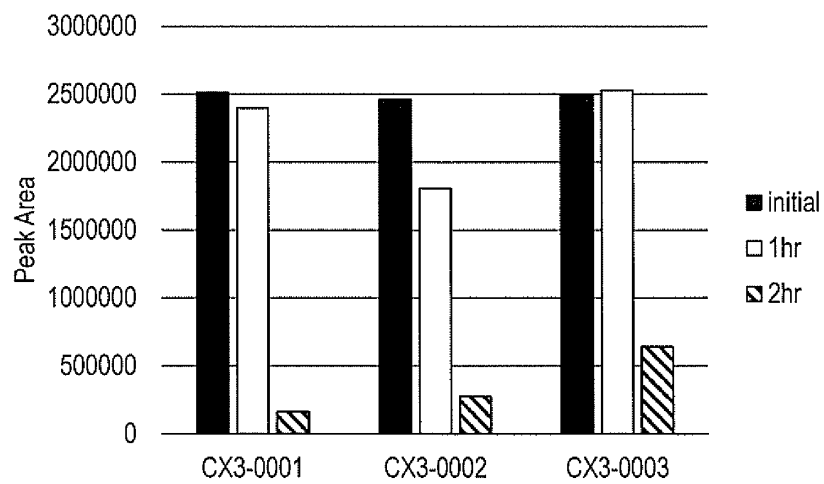


[図4-2]

A

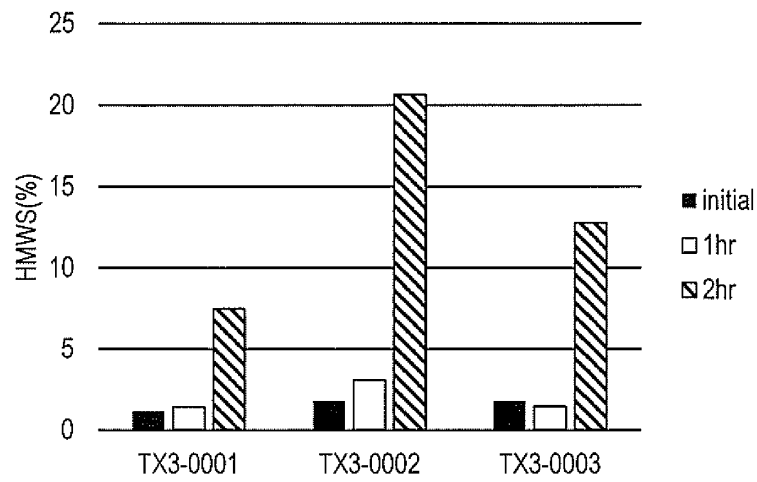


B

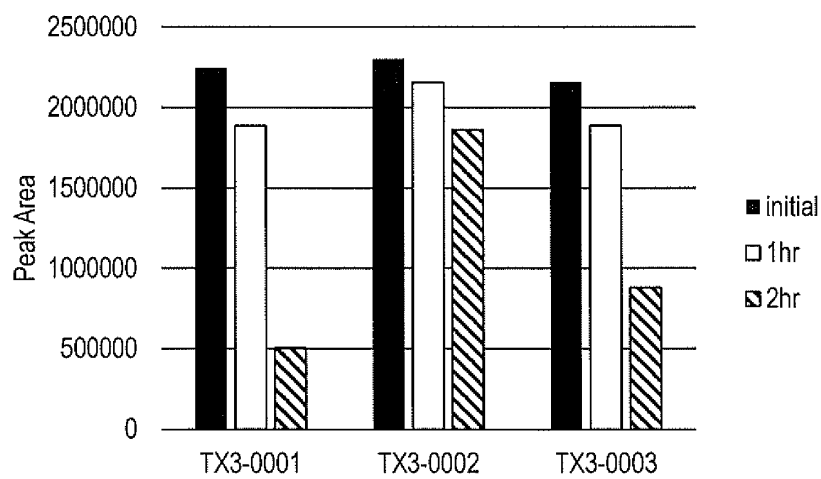


[図4-3]

A



B



[図5]

C3E-7085-Fab

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGG
 RIYYPD SVKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVAYWGQGT
 LVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGV
 HTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRV
 (配列番号1)

[図6]

C3E-7085-LC

NEMLTQPSSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTAPKLLIYRDDKRP
SGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGGTKLTVLGQPKA
APSVTLFPPSSEELQANKATLVCLISDFYPGAVTVAWKADSSPVKAGVETTTTPSKQ
SNNKYAASSYLSTPEQWKSHRSYSCQVTHEGSTVEKTVAPTECS
(配列番号2)

[図7]

C3E-7096

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGG
RIYYPDSVKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGCCT
LVTVSSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGGSGGGG
WYQQLPGTAPKLLIYRDDKRP
SGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGGTKLTVL
(配列番号3)

[図8]

HC_h

ATGAAGCACCTCTGGTTCTTTCTCCTGTTGGTGGCTGCACCAAGATGGGTCTCTGAG
CGACAAGACGCACACTTGGCCCTCCGTGTCCAGCTCCCGAAGCTGCAGGAGGTCCCA
GCGTTTTCTGTTTCTCCAAAGCCCAAAGACACCCTGATGATCTCCAGGACTCCC
GAGGTGACCTGTGTAGTTGTCGACGTTAGCCATGAGGATCCCGAGGTCAAGTTTAA
CTGGTATGTCGACGGAGTTGAAGTCCACAATGCCAAGACCAAACCACGAGAAGAGC
AGTACAATAGCACATATCGCGTAGTGTCTGTACTGACCGTGTTCATCAGGATTGG
CTTAATGGGAAGGAGTACAAGTGCAAAGTGAGCAACAAAGCCCTTCCGGCGCCCAT
AGAGAAAACCATCAGCAAGGCAAAGGGGCAACCTCGGGAACCTCAGGTCTGCACAC
TGCCACCTTCTCGTGATGAGCTGACTAAGAACCAGGTGTCACTGTCTGTGCCGTG
AAAGGCTTTTACCCCTCCGACATTGCCGTGGAATGGGAGTCAAATGGTCAGCCTGA
GAACAACCTACAAGACTACACCGCCAGTGCTCGATTGAGATGGCTCTTTCTTCTCTGG
TTTCCAAGCTGACAGTGGACAAATCCAGATGGCAACAGGGCAATGTGTTTCTGCTGC
AGTGTGATGCATGAAGCCCTTCAACAACCACTATACGCAGAAAAGTCTGAGTCTCTC
TCCTGGAAAA

(配列番号4) シグナル配列 (1-57)、Hinge (58-87)、CH2 (88-417)、
CH3 (418-738)

[図9]

C3E-7085-HC-k

ATGAAGCATCTCTGGTTTTTCTTGCTGCTCGTCGCTGCACCTCGATGGGTGCTGTC
AGGCGAAGTCCAGCTGGTTGAATCTGGCGGTGGCCTGGTGCAACCTGGAGGGTCTT
TGAGACTGAGTTGTGCCGCATCAGGAGTCACCTTCAACTACTATGGCATGTCATGG
ATACGCCAAGCTCCCGGGAAGGGCTCGAATGGGTGCGATCAATCACTCGGTCTGG
GGGGAGAATCTACTATCCAGACTCAGTCAAGGGCCGCTTTACCATCAGCCGTGAGA
ATACCCAGAAAACGCTGTACCTACAGATGAACTCCCTTCGGGCAGAGGACACTGCC
GTGTACTACTGTACACTGGATGGGCGAGATGGGTGGGTTCCTATTGGGGCCAAGG
TACTCTTGCTGACTGTGTCTTCGGGAGGCGGCGGTTCCGGTGGTGGTGGTTCCGGAG
GAGGAGGAAGCAACTTCATGCTGACACAGCCGTCTTCCGTATCTGGCGTACCAGGT
CAACGCGTGACCATTTCTTGCAACCGCAATACAGGGAACATTGGCAGCAACTATGT
GAACTGGTATCAGCAGCTTCCCGGAACTGCTCCTAAACTCCTGATATACAGGGATG
ATAAGCGGCCTTCTGGGGTCCCTGATCGGTTTAGTGGCTCCAAAAGCGGAACCTCG
GCGAGCCTGGCAATCACAGGCTTTCAGGCTGAGGATGAGGCCGACTATTATTGCCA
GAGTTATAGTAGCGGATTCATCTTTGGCGGGGGCACGAAGTTAACCGTGCTTGGTG
GAGAGCCCAAAAGCGCCGACAAGACCCACACCTGTCCACCTTGTCCCGCTCCAGAA
GCCGCTGGGGGGCCCTTCCGTCTTTCTCTTTCCCCCGAAACCCAAAGACACACTGAT
GATCTCCAGAACACCCGAAGTAACCTGCGTTGTGGTTGACGTATCCACGAAGATC
CCGAAGTGAAGTTCAATTGGTACGTGGACGGCGTTGAGGTGCACAATGCCAAAACA
AAGCCTAGGGAGGAACAGTACAATTGACATATAGGGTAGTGTGAGTCTTGACAGT
GTTACACCAGGACTGGTTGAACGGGAAAGAGTACAAGTGCAAGGTGAGCAACAAAG
CGCTTCCAGCGCCAATTGAGAAGACGATTTCCAAAGCCAAAGGACAGCCGAGGGAA
CCGAGGTCTACACCTTACCCCATGCAGAGACGAGTTGACCAAGAATCAGGTGAG
TCTATGGTGCCTCGTGAAGGGCTTCTATCCCAGCGATATTGCCGTGAGTGGGAAT
CTAATGGCCAACCAGAGAACAACCTACAAGACTACGCCACCCGTTCTGGACAGTGAT
GGGAGCTTCTTCCCTATACTCCAAGCTCACTGTGGACAAGTCACGTTGGCAACAGGG
AAATGTTTTTCAGTTGTAGCGTGATGCATGAGGCCTTGCATAATCACTACACTCAGA
AAAGCCTGTCCCTGTACCTGGAAAG

(配列番号5) シグナル配列 (1-57)、C3E-7085 (61-780)、linker (781-786)、Hinge (787-831)、CH2 (832-1161)、CH3 (1162-1482)

[図10]

C3E-7085-Fab-HC-k

ATGAAACATCTCTGGTTCTTTCTGCTGCTGGTAGCCGCCCTAGATGGGTCCTCAG
TGAGGTTTCAGCTTGTAGAGTCCGGCGGCGGCTTGGTGCAGCCGGAGGTTCCCTCC
GGCTTTCTTGCCTGCTTCAGGAGTTACGTTCAATTACTATGGGATGTCCCTGGATA
AGGCAGGCTCCCGGTAAGGGGTTGGAATGGGTGGCCAGTATTACCCGCAGTGGAGG
AAGAATCTACTATCCGGATTCTGTGAAAGGACGGTTCACTATCAGCAGAGAAAATA
CACAGAAAACCCCTTTATCTCCAGATGAACTCCCTTCGTGCCGAGGATACCGCTGTG
TACTACTGCACACTGGATGGCCGAGATGGGTGGGTAGCCTACTGGGGTCAAGGAAC
GCTTGTGACAGTTTCTCAGCCAGCACTAAGGGACCAAGCGTCTTTCCGTTGGCAC
CCAGCAGCAAAAGTACTAGCGGCGGCACAGCTGCACTGGGCTGCCTGGTGAAGGAC
TATTTCCCTGAACCCGTCACCGTGCTCTGGAACCTCCGGTGCCTTGACTCCGGTGT
TCACACATTTCCCGCAGTGCTCCAGAGTTCCGGGCTCTACTCACTGTCACTGTGTG
TCACCGTGCCTAGCTCAAGTCTGGGGACCCAACTTACATCTGCAATGTGAACCAT
AAGCCTAGTAACACCAAAGTCGACAAACGCGTCGAGCCCAAGTCATGCGACAAGAC
CCACACATGTCCACCTTGTCCCGCACCTGAGGCGGCTGGTGGCCCATCCGTGTTTC
TGTTTCCACCAAAGCCTAAAGACACCCTGATGATTAGTCGAACACCAGAGGTGACT
TGCGTTGTGTCGATGTGTACACGAAGATCCGGAGGTAAAGTTCAACTGGTACGT
CGATGGGGTGGAGGTTTATAACGCCAAGACTAAGCCAAGAGAAGAGCAGTACAAC
CTACGTATAGGGTGGTAAGCGTACTGACAGTGTGACACCAGGATTGGCTCAATGGC
AAGGAATACAAGTGTAAGGTGTCTAATAAGGCGCTGCCTGCGCCAATTGAGAAAAC
GATCTCTAAGGCCAAAGGGCAACCAAGGGAGCCCCAAGTCTATACCCTGCCTCCGT
GTCGGGACGAACTGACTAAGAACCAAGTGAGCCTCTGGTGCCTGGTCAAAGGCTTT
TATCCCAGCGACATAGCAGTGGAATGGGAGAGCAATGGGCAGCCAGAGAACAATA
CAAGACCACACCTCCCGTTCTGGACTCTGACGGATCATTCTTTCTGTATTCCAAAC
TGACAGTTGACAAGTCTCGCTGGCAGCAGGGAAATGTGTTTCAGCTGTAGCGTGATG
CATGAAGCCCTGCACAATCACTATACCCAGAAAAGCCTGAGCCTGTCTCCCGGCAA
A

(配列番号6) シグナル配列 (1-57)、C3E-7085-VH (58-411)、CH1 (412-705)、Hinge (706-750)、CH2 (751-1080)、CH3 (1081-1401)

[図11]

C3E-7085-LC

ATGGTTCCTGCAGACTCAGGTGTTTCAATTCCTTCTGCTGTGGATTAGTGGGGCATA
TGGGAATTTTCATGCTGACTCAGCCAAGCTCCGTAAGCGGAGTACCCGGCCAAAGAG
TCACAATCAGTTGCACTGGTAACACCGGTAATATCGGCTCTAACTACGTGAATTGG
TACCAGCAGTTGCCAGGAACAGCACCCAACTCCTGATCTACCGCGATGACAAGCG
ACCATCTGGCGTGCCTGATCGGTTTAGCGGGAGCAAAAGTGGCACAAGTGCCTCAT
TGGCCATAACGGGGTTCCAGGCGGAGGATGAAGCAGACTACTATTGCCAGTCCCTAC
TCCTCTGGCTTCATCTTTGGCGGAGGGACCAAGCTCACCGTGCTTGGACAACCCAA
AGCAGCTCCATCAGTGACCCTGTTTCCTCCTTCTTCTGAGGAGCTGCAGGCCAATA
AGGCCACACTGGTGTGTCTCATTAGCGACTTTTATCCGGGTGCGGTCACTGTGGCC
TGGAAAGCCGACTCAAGTCCGGTTAAGGCTGGAGTTGAGACAACCACACCCTCTAA
GCAGAGCAACAACAAGTATGCTGCCTCAAGCTACCTCTCACTGACCCCTGAGCAGT
GGAAATCCCATAGGAGCTATTCTTGCCAAGTCACCCACGAAGGCTCCACCGTCGAA
AAGACTGTGGCTCCCACGGAATGTAGC

(配列番号7) シグナル配列 (1-60)、C3E-7085_VL (61-381) , CL (382-
699)

[図12]

C3E-7096-HC-k

ATGAAGCACCTGTGGTTTTTCTGTTACTCGTTGCTGCTCCCAGATGGGTCTTGAG
 CGGAGAAGTACAGCTTGTAGAGTCAGGAGGAGGACTGGTACAACCAGGTGGCTCGT
 TACGGCTCAGTTGCGCAGCCTCCGGTGTGACTTTCAACTACTACGGCATGAGCTGG
 ATACGGCAAGCGCCTGGAAAGGGGCTCGAATGGGTAGCCTCCATAACACGGAGTGG
 GGGTCGCATTTACTACCCGATTCTGTCAAAGGCCGCTTCACAATCAGCAGAGAAA
 ACACGCAGAAAACATTGTACCTCCAGATGAATAGCCTTAGGGCCGAAGATACGGCA
 GTCTACTATTGCACCCTGGATGGCAGGGACGGTTGGGTTCCTATTGGGGTTGTGG
 CACCTTAGTGACCGTATCCTCTGGAGGAGGCGGCAGTGGAGGAGGGGGATCAGGGG
 GTGGAGGGAGTAACCTTCATGCTTACACAGCCAAGTTCTGTTTCAGGTGTTCTGGG
 CAGAGGGTTACCATCTCTTGCACAGGGAATACAGGCAACATTGGCAGCAACTATGT
 GAATTGGTATCAGCAGCTACCAGGCACGTGTCCGAAACTGTTGATCTATCGGGATG
 ACAAAGACCGTCCGGAGTGCCTGATCGCTTTTCCGGCTCTAAATCCGGGACTTCA
 GCGAGTTTGGCCATTACTGGGTTTCAGGCAGAAGATGAGGCCGACTACTACTGCCA
 GAGCTACTCTAGCGGGTTCATCTTTGGCGGTGGGACCAAGCTGACTGTGCTGGGCG
 GCGAACCCTAAATCCGCCGACAAAACCCACACTTGTCCGCCATGTCCTGCTCCAGAG
 GCAGCTGGTGGCCCCCTCTGTCTTTCTGTTTCCCCCTAAGCCCAAGGACACACTGAT
 GATTTTCGCGTACTCCAGAGGTGACGTGTGTGGTGGTGGATGTGTCTCATGAAGATC
 CCGAGGTGAAGTTCAATTGGTATGTGGACGGAGTGGAAGTCCACAACGCTAAGACA
 AAGCCTAGGGAAGAGCAGTATAACTCCACCTACAGAGTCGTTAGCGTGCTGACCGT
 GCTCCATCAAGACTGGCTCAATGGCAAGGAGTACAAGTGCAAAGTCTCCAATAAGG
 CCCTTCCTGCTCCCATCGAGAAAACCATCTCAAAGGCGAAAGGACAACCCCGAGAA
 CCTCAGGTCTATACCCTACCACCCTGTCGTGACGAGCTGACTAAAAATCAGGTGTC
 ACTGTGGTGCTAGTCAAAGGGTTCTATCCCTCTGACATTGCCGTGGAGTGGGAGA
 GCAATGGCCAGCCAGAGAACAATACTACAAGACCACACCTCCAGTCCCTGGACTCGGAT
 GGCTCCTTCTTCTGTACAGCAAGCTCACCGTTGACAAGTACGATGGCAGCAAGG
 GAATGTGTTCTCATGCAGCGTGATGCATGAGGCACTTCACAACCACTATACTCAGA
 AGTCCCTGAGCTTGAGTCCGGGGAAA

(配列番号8) シグナル配列 (1-57)、C3E-7096 (61-780)、linker (781-786)、Hinge (787-831)、CH2 (832-1161)、CH3 (1162-1482)

[図13]

HC_h

MKHLWFFLLLVAAAPRWVLSDKTHTCPPEAAGGPSVFLFPKPKDLMIS RTP
 EVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDW
 LNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVCTLPSPRDELTKNQVSLSCAV
 KGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLVSKLTVDKSRWQQGNVFSC
 SVMHEALHNHYTQKSLSLSPGK

(配列番号9) シグナル配列 (1-19)、Hinge (20-29)、CH2 (30-139)、CH3 (140-246)

[図14]

C3E-7085-HC-k

MKHLWFFLLLVAAPRWVLSGEVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSW
 IRQAPGKGLEWVASITRSGGRIYYPDSVKGRFTISRENTQKTLYLQMNSLRAEDTA
 VYYCTLDGRDGVVAYWGQGTILVTVSSGGGGSGGGGSGGGGSGNFMILTQPSVSGVPG
 QRVTISCTGNTGNIGSNYVNWYQQLPGTAPKLLIYRDDKRPSGVPDRFSGSKSGTS
 ASLAITGFQAEDEADYYCQSYSSGFIFGGGTKLTVLGGEPKSADKHTCPPCPAPE
 AAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKT
 KPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE
 PQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSD
 GSFFLYSKLTVDKSRWQQGNVFSVMSHEALHNHYTQKSLSLSPGK

(配列番号10) シグナル配列 (1-19)、C3E-7085 (21-260)、linker (261-
 262)、Hinge (263-277)、CH2 (278-387)、CH3 (388-494)

[図15]

C3E-7085-Fab-HC-k

MKHLWFFLLLVAAPRWVLSGEVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWI
 RQAPGKGLEWVASITRSGGRIYYPDSVKGRFTISRENTQKTLYLQMNSLRAEDTAV
 YYCTLDGRDGVVAYWGQGTILVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKD
 YFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNH
 KPSNTKVDKRVEPKSCDKHTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVT
 CVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNG
 KEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGF
 YPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSVMS
 HEALHNHYTQKSLSLSPGK

(配列番号11) シグナル配列 (1-19)、C3E-7085-VH (20-137)、CH1 (138-
 235) Hinge (236-250)、CH2 (251-360)、CH3 (361-467)

[図16]

C3E-7085-LC

MVLQTQVFISLLWISGAYGNFMILTQPSVSGVPGQRVTISCTGNTGNIGSNYVNW
 YQQLPGTAPKLLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSY
 SSGFIFGGGTKLTVLGQPKAAPSVTLFPPSSEELQANKATLVCLISDFYPGAVTVA
 WKADSSPVKAGVETTTTPSKQSNKYAASSYLSLTPEQWKSHRSYSCQVTHEGSTVE
 KTVAPTECS

(配列番号12) シグナル配列 (1-20)、C3E-7085_VL (21-127)、CL (128-
 233)

[図17]

C3E-7096-HC-k

MKHLWFFLLLVAAPRWVLSGEVQLVESGGGLVQPGGSLRLSCAASGVTFENYIGMSW
IRQAPGKGLEWVASITRSGGRIYYPDsvKGRFTISRENTQKTLYLQMNSLRAEDTA
VYYCTLDGRDGVVAYWCCGLVTVSSGGGGSGGGSGGGGSNFMLTQPSVSGVPG
QRVTISCTGNTGNIGSNYVNWYQQLPGTCPKLLIYRDDKRPSGVPDRFSGSKSGTS
ASLAITGFQAEDEADYYCQSYSSGFIFGGGTKLTVLGGEPKSADKTHTCPPCPAPE
AAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKT
KPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE
PQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSD
GSFFLYSKLTVDKSRWQQGNVFSVSMHEALHNHYTQKSLSLSPGK
(配列番号13) シグナル配列 (1-19)、C3E-7096 (21-260)、linker (261-
262)、Hinge (263-277)、CH2 (278-387)、CH3 (388-494)

[図18]

TX3-0001-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTTGTGGCCGCACCACGGTGGGTGCTGTC
AGGTCAGGTGCAGTTAGTGCAGTCAGGCGCAGAAGTAAAGAAACCAGGAGCTTCAG
TGAAGGTCAGTTGCAAGGCTTCTGGGTATACGTTCACTACCGCAGGGATGCAGTGG
GTGCGCCAAGCTCCAGGGCAGGGACTGGAGTGGATGGGGTGGATTAATACCCATAG
CGGGGTCCCAAAGTACGCGGAAGATTTCAAAGGCAGAGTCACCATTTCTGCCGATA
CGAGCACATCGACAGCATACCTCCAGCTTAGTTCCCTTGAAGAGTGAGGACACAGCT
GTATACTACTGCGCCAGATCCGGTTTTTGGTAGCAGTTACTGGTACTTCGACGTGTG
GGGCCAAGGCACACTCGTGACTGTATCCTCAGGAGGGGGAGGTTCCGGTGGCGGCG
GCTCTGGAGGAGGCGGAAGCGACATTCAGATGACCCAGTCTCCAGTAGCCTTAGC
GCCAGTGTGGCGATAGAGTGACAATCACCTGTAAAGCCTCTCAGGACGTGTCGAC
AGCAGTGGCATGGTATCAGCAGAAACCCGGAAGGCTCCCAAGCTACTGATATATT
CCGCGTCGTATCGGTACACAGGGGTACCATCTCGCTTCTCGGGTTCCGGCAGCGGC
ACCGACTTTACCCTCACAATTAGCTCTTTACAGCCCGAAGACTTCGCAGTGTATTA
TTGCCAGCAACACTATATACCCCGCTGACTTTTGGGCAGGGTACGAAGCTTGAGA
TCAAACGGACTGGCGGGGGTGGGTCTGAGGTCCAGCTGGTTGAATCCGGCGGGGGA
TTAGTGCAGCCAGGCGGTTCACTGAGGTTGAGCTGTGCAGCCTCTGGAGTCACGTT
TAACTACTATGGCATGTCTTGATTAGACAAGCCCCAGGCAAAGGCCTGGAGTGGG
TAGCCTCTATACCCGAAGCGGTGGACGCATCTATTACCCAGATAGCGTGAAGGGC
CGGTTTCACAATCAGTAGAGAGAACACCCAGAAGACACTGTACCTACAAATGAACAG
CCTAAGAGCCGAGGATACCGCGGTGTACTACTGTACACTCGATGGAAGGGATGGGT
GGGTGGCTTACTGGGGGCAGGGGACTCTCGTCACCGTTAGTAGTGGCGGTGGCGGT
AGCGGAGGAGGAGGTAGCGGCGGAGGTGGGTCAAATTTTCATGCTCACACAGCCCAG
CTCAGTCTCCGGGGTACCTGGCCAGCGTGTGACTATCTCCTGCACTGGCAATACCG
GAAACATAGGAAGCAATTACGTAAACTGGTATCAACAGCTTCCGGGCACTGCCCT
AAACTCCTGATTTACCGCGATGATAAAAGGCCTTCCGGCGTCCAGACAGGTTTAG
TGGCTCGAAATCCGGGACAAGCGCCAGTTTTGGCAATTACCGGATTTCAAGCCGAAG
ATGAAGCTGACTACTACTGCCAGTCTTATTCATCAGGGTTCATATTTGGCGGTGGA
ACTAAACTGACCGTCTTGGAGGGGAACCCAAGAGCGCCGACAAAACACACACTTG
TCCTCCGTGTCCCGCGCCCGAAGCTGCTGGGGGGCCAGTGTGTTCTATTTCCCC
CCAAGCCAAAGGACACGTTGATGATCTCTCGTACCCCTGAGGTCACGTGCGTTGTG
GTTGACGTCTCCACGAAGATCCCGAGGTGAAATTCAACTGGTATGTGGACGGCGT
TGAGGTGCACAATGCCAAAATAAGCCGAGGGAAGAGCAGTACAACCTCTACCTATC
GGGTGGTGTCTGTTTTGACAGTTCTCCATCAGGACTGGCTGAATGGAAAAGAGTAC
AAGTGCAAGGTGAGTAACAAAGCTCTGCCAGCCCCCTATCGAGAAAACCATCTCCAA
GGCCAAAGGCCAACACGAGAGCCTCAAGTTTACACCCTCCCTCCTTGTGCGAGACG
AGCTGACCAAGAACCAAGTCTCCTTATGGTGTCTCGTGAAGGGATTTTATCCCTCA
GACATTGCCGTGGAGTGGGAATCTAATGGCCAGCCTGAGAACAATTATAAGACAAC
TCCTCCTGTCTTGATTCCGATGGCTCCTTTTTCTGTACTCTAAGTTGACTGTGCG
ACAAGTCACGCTGGCAGCAGGGGAATGTTTTCTCTTGCAGCGTTATGCATGAAGCT
CTGCATAACCACTATACTCAGAAAAGCCTGTCACTGTCAACGGGGAAG

(配列番号14) シグナル配列(1-57)、HT1-11 scFv(61-795)、
linker(796-810)、C3E-7085(811-1530)、linker(1531-1536)、
Hinge(1537-1581)、CH2(1582-1911)、CH3(1912-2232)

[図19]

TX3-0003-HC_k

ATGAAGCATCTCTGGTTTTTCCTGCTCCTGGTGGCGGCTCCAAGATGGGTGTTGAG
CGGTCAGGTGCAACTGGTGCAGTCAGGAGCGGAGGTCAAGAAACCCGGCGCGAGTG
TCAAAGTGAGTTGCAAAGCTTCCGGATATACTTTCACTACCGCTGGAATGCAATGG
GTGAGACAAGCACCAGGGCAAGGCTTGGAATGGATGGGCTGGATCAACACACACTC
TGGGGTTCCCAAGTATGCCGAAGACTTTAAGGGTAGGGTCACCATATCAGCCGATA
CATCAACCTCGACCGCATACCTCCAGCTGTCTCCCTTAAGAGCGAGGATACTGCT
GTTTACTATTGCGCTAGGTCAAGATTGCGCTCTTCTTACTGGTACTTTGATGTGTG
GGGGCAGGGCACACTTGTGACGGTTTCCTCTGGCGGCGGCGGGTCAGGAGGTGGTG
GCTCTGGAGGGGGTGGTTCAGACATCCAGATGACCCAGAGTCCTTCCTCCTTGAGT
GCCAGTGTAGGCGACAGAGTCACTATTACCTGCAAGGCCTCTCAGGACGTGTGAC
AGCGGTTGCATGGTATCAGCAGAACTGGGAAGGCTCCAAAGCTCCTGATCTACT
CAGCCAGCTATCGGTACACTGGGGTCCCTTCTCGCTTTAGCGGCTCTGGTAGCGGG
ACCGACTTCACGCTTACCATCAGTTCCTGCAACCGGAGGACTTTGCAGTGACTA
CTGTGACGAGCATTACATCAACCCACTGACATTTGGGCAGGGGACAAAGCTTGAGA
TTAAACGGACAGGCGGCGGAGGAAGCGAGGTGCAGTTAGTGGAGAGCGGAGGGGGT
TTAGTCCAACCGGGCGGGAGCCTCCGTCTGAGCTGTGCTGCTTCCGGCGTTACCTT
CAACTATTATGGAATGAGCTGGATCAGGCAAGCCCCCTGGCAAAGGTCTTGAATGGG
TTGCATCTATCACTCGATCAGGGGGTCGCATTTATTACCCGGATAGCGTTAAAGGC
AGGTTTCAATCTCTCGGGAGAACACTCAGAAAACCTCTATCTACAGATGAACCTC
TTTACGGGCCGAAGATACAGCCGTCTATTATTGCACTCTAGATGGTCGAGATGGCT
GGGTGCGCTATTGGGGGTGTGGAACCTTGGTCACTGTTAGCAGTGAGGAGGAGGA
TCAGGAGGGGGCGGGTCCGGCGGTGGGGGTAGCAATTCATGCTGACACAACCTTC
TTCAGTATCTGGCGTGCCAGGACAGCGCGTCAACATCTCTTGTACCGGCAATACAG
GTAACATTGGCTCCAATTACGTGAATTGGTACCAGCAGCTTCCTGGCACCTGCCCT
AAGCTGCTGATTTACCGGGACGATAAGAGGCCCTCGGGGGTGCCCGACCGTTTCTC
GGGAAGCAAGTCCGGGACATCCGCCTCACTTGCCATTACGGGGTTTCAGGCCGAGG
ATGAAGCTGATTACTACTGCCAGTCTTACTCCAGTGGCTTCATTTTTTGGCGGAGGC
ACCAAGCTGACAGTGCTAGGCGGAGAACCCAAAAGTGCAGACAAGACGCATACTTG
CCCCCGTGCTCCTGCTCCAGAAGCAGCAGGAGGACCTCTGTTTTCTCTTTCCAC
CTAAACCCCAAGGACACTCTGATGATAAGCAGAACACCTGAAGTGACGTGTGTGTG
GTAGATGTCTCCCATGAAGATCCCGAAGTCAAGTTCAACTGGTACGTGGACGGCGT
GGAGGTGCACAATGCCAAAACGAAGCCCAGAGAGGAGCAGTATAACTCCACATACA
GAGTTGTGAGCGTACTGACTGTATTGCACCAAGACTGGCTGAATGGTAAGGAGTAC
AAGTGCAAGGTGTCAAACAAAGCTCTGCCTGCACCCATAGAGAAAACCATCAGTAA
GGCCAAAGGGCAGCCACGCGAGCCACAGGTGTATACTCTGCCACCATGCCGAGACG
AGCTCACTAAGAATCAGGTGAGCTTGTGGTGTCTCGTAAAGGGCTTTTACCCCTCG
GACATTGCCGTAGAGTGGGAATCCAATGGGCAACCCGAGAACAATTACAAAACCAC
ACCGCCAGTGTTAGACAGCGATGGAAGCTTCTTTCTCTATAGCAAGCTGACCGTCG
ACAAAAGTCGCTGGCAGCAGGGGAACGTCTTCAGTTGTTCCGTGATGCACGAAGCC
CTACACAACCACTATACCCAGAAATCCCTGTCACTGAGTCCTGGCAA

(配列番号15) シグナル配列(1-57)、HT1-11 scFv(61-795)、
linker(796-810)、C3E-7096(811-1530)、linker(1531-1536)、
Hinge(1537-1581)、CH2(1582-1911)、CH3(1912-2232)

[図20]

CX3-0001-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTTTCACTGGTTTCACTCTGGCGCCGAAGTGAAGAAACCTGGCGCCTCTG
TGAAGGTGTCTTCAAGGCCTCTGGCTACGCCTTCACTCACTACCTGATCGAGTGG
GTCCGACAGGCCCCCTGGACAAGGACTTGAATGGATGGGCGTGATCAACCCTGGCAG
CGGCGTGACCAACTACAACGAGAAGTTCAAGGGCAGAGTGACCATCACCGCCGACA
CCAGCACAAGCACCGCCTACATGGAAGTGAAGCAGCCTGAGAAGCGAGGACACCGCC
GTGTACTATTGTGCCAGAGCCGAGGCTTGGTTTGCCTATTGGGGACAGGGCACCCCT
GGTCACCGTTAGCTCTGGTGGAGGCGGTTTCAAGGCGAGGTGGCAGCGGCGGTGGCG
GGAGTGATATTGTGATGACACAGAGCCCCGACAGCCTGGCCGTGTCTCTTGGAGAA
AGAGCCACCATCACTGCAAGAGCAGCCAGAGCCTGCTGTACTCCAGCAACCAGAA
GAACTACCTGGCCTGGTATCAGCAGAAGCCCGGCCAGCCTCCTAAGCTGCTGATCT
ACTGGGCCAGCACAGAGAAAGCGGCGTGCCCGATAGATTTTCTGGCTCTGGCAGC
GGCACCGACTTACCCCTGACAATTTCTAGCCTGCAAGCCGAGGACGTGGCCGTGTA
CTACTGCCAGAGATATTACGGCTACCCCTGGACCTTTGGCCAGGGCACCAAGGTGG
AAATCAAGGGAGGCGGAGGATCTGAAGTGCAGCTGGTGGAAATCCGGGGGGGGCCTG
GTGCAGCCTGGGGGGAGCCTGAGACTGAGTTGTGCCGCTCTGGGGTGACATTTAA
CTACTATGGCATGTCTTGGATCCGCCAGGCACCTGGAAAGGGCCTGGAGTGGGTGG
CCAGCATCACTAGGTCCGGCGGGCGAATCTACTATCCCGACAGCGTCAAGGGCAGG
TTCACAATTTCCCGCGAGAACACACAGAAAACCTCTGTACCTGCAGATGAATAGCCT
GAGAGCCGAAGATACAGCTGTGTACTATTGCACTCTGGACGGCAGGGATGGGTGGG
TCGCCTATTGGGGGCGAGGAACCCCTGGTGACAGTCAGCTCCGGAGGAGGAGGATCT
GGCGGAGGAGGAGTGGGGGAGGCGGGTCAAACCTTTATGCTCACTCAGCCGTCTC
TGTTTTCTGGCGTACCTGGCCAACGGGTGACCATTAGCTGTACGGGTAAATACCGGA
ATATCGGGTCTAACTACGTGAAGTGGTATCAGCAGCTTCCAGGGACAGCTCCCCAAG
TTGCTGATCTATCGCGACGACAAAAGACCCCTCAGGGGTCCCTGACCGATTTAGTGG
CAGCAAAAGCGGTACTTCCGCTTCCCTGGCGATAACCGGCTTTCAGGCCGAAGATG
AGGCAGACTACTATTGCCAGTCATATTCCAGCGGCTTCATCTTCGGAGGCGGAACCT
AAGCTGACAGTGTGGGGCGGAGAACCCAGAGCGCAGACAAGACCCACACCTGTCC
TCCATGTCTCTGCTCCAGAAGCTGCAGGCGGCCCTTCCGTGTTTCTGTTCCCTCCAA
AGCCTAAGGACACCCCTGATGATCAGCCGGACACCTGAAGTGACCTGCGTGGTGGTG
GATGTGTCCCACGAGGATCCCGAAGTGAAGTTCAATTGGTACGTGGACGGCGTGGA
AGTGACACAACGCCAAGACCAAGCCTAGAGAGGAACAGTACAACAGCACCTACAGAG
TGGTGTCTGTGCTGACAGTGTGACACCAGGACTGGCTGAACGGCAAAGAGTACAAG
TGCAAGGTGTCCAACAAGGCCCTGCCTGCTCCTATCGAGAAAACCATCAGCAAGGC
CAAGGGCCAGCCTAGGGAACCCCAGGTTTACACCCTGCCTCCATGCAGGGATGAGC
TGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTTAAGGGCTTCTACCCCTCCGAT
ATCGCCGTGGAATGGGAGAGCAATGGCCAGCCAGAGAACAACCTACAAGACAACCCC
TCCTGTGCTGGACTCCGACGGCTCATTTCTTCTGTACAGCAAGCTGACCGTGGACA
AGAGCAGATGGCAGCAGGGCAACGTGTTTCACTGTCAGCGTGATGCACGAGGCCCTG
CACAACCACTACACACAGAAGTCCCTGTCTCTGAGCCCCGGCAA

(配列番号16) シグナル配列(1-57)、hM23-H1L1 scFv(61-792)、
linker(793-807)、C3E-7085(808-1527)、linker(1528-1533)、
Hinge(1534-1578)、CH2(1579-1908)、CH3(1909-2229)

[図21]

CX3-0003-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTTTCAAGCTGGTTTCAAGCTGGCGCCGAAGTGAAGAAACCTGGCGCCTCTG
TGAAGGTGTCCTGCAAGGCCTCTGGCTACGCCTTCAAGCAACTACCTGATCGAGTGG
GTCCGACAGGCCCCCTGGACAAGGACTTGAATGGATGGGCGTGATCAACCCCTGGCAG
CGGCGTGACCAACTACAACGAGAAGTTCAAGGGCAGAGTGACCATCACCGCCGACA
CCAGCACAAGCACCGCCTACATGGAAGTGAAGCAGCCTGAGAAGCGAGGACACCGCC
GTGTACTATTGTGCCAGAGCCGAGGCTTGGTTTGCCTATTGGGGACAGGGCACCCT
GGTCACCGTTAGCTCTGGTGGAGGCGGTTTCAAGGCGGAGGTGGCAGCGGCGGTGGCG
GGAGTGATATTGTGATGACACAGAGCCCCGACAGCCTGGCCGTGTCTCTTGGAGAA
AGAGCCACCATCAACTGCAAGAGCAGCCAGAGCCTGCTGTACTCCAGCAACCAGAA
GAACTACCTGGCCTGGTATCAGCAGAAGCCCGCCAGCCTCCTAAGCTGCTGATCT
ACTGGGCCAGCACCAGAGAAAGCGGCGTGCCCGATAGATTTTCTGGCTCTGGCAGC
GGCACCGACTTACCCCTGACAATTTCTAGCCTGCAAGCCGAGGACGTGGCCGTGTA
CTACTGCCAGAGATATTACGGCTACCCCTGGACCTTGGCCAGGGCACCAAGGTGG
AAATCAAGGGAGGCGGAGGATCTGAAGTGCAGCTGGTGGAAATCCGGGGGGGGCCTG
GTGCAGCCTGGGGGGAGCCTGAGACTGAGTTGTGCCGCTCTGGGGTGACATTTAA
CTACTATGGCATGTCTTGGATCCGCCAGGCACCTGGAAAGGGCCTGGAGTGGGTGG
CCAGCATCACTAGGTCCGGCGGGCGAATCTACTATCCCGACAGCGTCAAGGGCAGG
TTCACAATTTCCCGCGAGAACACACAGAAAACCTCTGTACCTGCAGATGAATAGCCT
GAGAGCCGAAGATACAGCTGTGTACTATTGCACTCTGGACGGCAGGGATGGGTGGG
TCGCCTATTGGGGGTGTGGAACCCCTGGTGACAGTCAGCTCCGGAGGAGGAGGATCT
GGCGGAGGAGGAGTGGGGGAGGCGGGTCAAACCTTTATGCTCACTCAGCCGTCTC
TGTTTCTGGCGTACCTGGCCAACGGGTGACCATTAGCTGTACGGGTAATACCGGGA
ATATCGGGTCTAACTACGTGAAGTGGTATCAGCAGCTTCCAGGGACATGTCCCAAG
TTGCTGATCTATCGCGACGACAAAAGACCCTCAGGGGTCCCTGACCGATTTAGTGG
CAGCAAAAAGCGGTACTTCCGCTTCCCTGGCGATAACCGGCTTTCAGGCCGAAGATG
AGGCAGACTACTATTGCCAGTCATATTCCAGCGGCTTCATCTTCGGAGGCGGAACT
AAGCTGACAGTGTGGGGCGGAGAACCCAAAGAGCGCAGACAAGACCCACACCTGTCC
TCCATGTCTGCTCCAGAAGCTGCAGGCGGCCCTTCCGTGTTTCTGTTCCCTCCAA
AGCCTAAGGACACCCCTGATGATCAGCCGGACACCTGAAGTGACCTGCGTGGTGGTG
GATGTGTCCACGAGGATCCCGAAGTGAAGTTCAATTGGTACGTGGACGGCGTGGA
AGTGACACAACGCCAAGACCAAGCCTAGAGAGGAACAGTACAACAGCACCTACAGAG
TGGTGTCTGTGCTGACAGTGTGACACAGGACTGGCTGAACGGCAAAGAGTACAAG
TGCAAGGTGTCCAACAAGGCCCTGCCTGCTCCTATCGAGAAAACCATCAGCAAGGC
CAAGGGCCAGCCTAGGGAACCCCAAGGTTTACACCCCTGCCCTCCATGCAGGGATGAGC
TGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGTTAAGGGCTTCTACCCCTCCGAT
ATCGCCGTGGAATGGGAGAGCAATGGCCAGCCAGAGAACAATAACAAGACAACCCC
TCCTGTGCTGGACTCCGACGGCTCATTCTTCTGTACAGCAAGCTGACCGTGGACA
AGAGCAGATGGCAGCAGGGCAACGTGTTCAAGCTGCAGCGTGATGCACGAGGCCCTG
CACAACCACTACACACAGAAGTCCCTGTCTCTGAGCCCCGGCAAA

(配列番号17) シグナル配列 (1-57)、hM23-H1L1 scFv (61-792)、
linker (793-807)、C3E-7096 (808-1527)、linker (1528-1533)、
Hinge (1534-1578)、CH2 (1579-1908)、CH3 (1909-2229)

[図22]

RX3-0001-HC_k

ATGAAGCACCTGTGGTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
 TGGACAGGTGCAGCTGGTGCAGTCTGGCGCCGAAGTGAAGAAACCAGGCGCCAGCG
 TGAAGGTGTCTGCAAGGCCAGCGGCTACACCTTTACCGGCTACTACATGCACTGG
 GTGCGCCAGGCTCCAGGCCAGGGACTGGAATGGATGGGCGGATCAACCCCAATAG
 CGGCGGCACCAACTACGCCAGAAATTCCAGGGCAGAGTGACCATGACCCGGGACA
 CCAGCATCAGCACCGCCTACATGGAAGTGAAGCGGCTGAGAAGCGACGACACCGCC
 GTGTACTACTGTGCCTCTGGCTCTGTGCGGCACCCTTGGGGACAGGGAACACTCGT
 GACCGTGTCCAGCGGTGGAGGCGGTTTCAAGCGGAGGTGGCAGCGGCGGTGGCGGGA
 GTCAGCCTGTGCTGACACAGCCTCCAAGCGCCTCTGGCACACCTGGCCAGAGAGTG
 ACAATCAGCTGCAGCGGCAGCAGAAGCAACATCGGCGGCAACATCGTGTCTGGTA
 TCAGCAGTTCCTCCGGCACCGCCCTAGACTGCTGACCTACGCCGACAACCAGAGGC
 CTAGCGGCGTGCCGATAGATTTCAGCGGCTCTAAGAGCGGCACCAGCGCCAGCCTG
 GCCATCTCTGGCCTGCAGTCTGAGGACGAGGCCGACTACTATTGCGCCGCTGGGA
 CGACAGCCTGAACGGCGTGGTGTGTTGGCGGAGGCACCAAGCTGACAGTGCTGggag
 gcggaggatctGAAGTGCAGCTGGTGAATCCGGGGGGGGCCTGGTGCAGCCTGGG
 GGGAGCCTGAGACTGAGTTGTGCGGCCTCTGGGGTGACATTTAACTACTATGGCAT
 GTCTTGATCCGCCAGGCACCTGGAAGGGCCTGGAGTGGGTGGCCAGCATCTACTA
 GGTCCGGCGGGCGAATCTACTATCCCGACAGCGTCAAGGGCAGGTTCACAATTTCC
 CGCGAGAACACACAGAAAACCTCTGTACCTGCAGATGAATAGCCTGAGAGCCGAAGA
 TACAGCTGTGTACTATTGCACCTCTGGACGGCAGGGATGGGTGGGTGCGCTATTGGG
 GGCAGGGAACCTGGTGACAGTCAGCTCCGGAGGAGGAGGATCTGGCGGAGGAGGC
 AGTGGGGGAGGCGGGTCAAACTTTATGCTCACTCAGCCGCTCCTCTGTTTCTGGCGT
 ACCTGGCCAACGGGTGACCATTAGCTGTACGGGTAATACCGGGAATATCGGGTCTA
 ACTACGTGAAGTGGTATCAGCAGCTTCCAGGGACAGCTCCCAAGTTGCTGATCTAT
 CGCGACGACAAAAGACCCTCAGGGGTCCCTGACCGATTTAGTGGCAGCAAAAGCGG
 TACTTCCGCTTCCCTGGCGATAACCGGCTTTCAGGCCGAAGATGAGGCAGACTACT
 ATTGCCAGTCATATTCCAGCGGCTTCATCTTCGAGGCGGAACTAAGCTGACAGTG
 TTGGGCGGAGAACCCAAGAGCgcaGACAAGACCCACACCTGTCTCCATGTCTCTGC
 TCCAGAAGCTGCAGGCGGCCCTTCCGTGTTTCTGTTCCCTCCAAAGCCTAAGGACA
 CCCTGATGATCAGCCGGACACCTGAAGTGACCTGCGTGGTGGTGGATGTGTCCCAC
 GAGGATCCCGAAGTGAAGTTCAATTGGTACGTGGACGGCGTGGAAGTGCAACGC
 CAAGACCAAGCCTAGAGAGGAACAGTACAACAGCACCTACAGAGTGGTGTCTGTGC
 TGACAGTGCTGCACCAGGACTGGCTGAACGGCAAAGAGTACAAGTGCAAGGTGTCC
 AACAAGGCCCTGCCTGCTCCTATCGAGAAAACCATCAGCAAGGCCAAGGGCCAGCC
 TAGGGAACCCAGGTTTACACCCTGCCTCCATGCAGGGATGAGCTGACCAAGAACC
 AGGTGTCCCTGTGGTGCCTGGTTAAGGGCTTCTACCCCTCCGATATCGCCGTGGAA
 TGGGAGAGCAATGGCCAGCCAGAGAACAACATAAGACAACCCCTCCTGTGCTGGA
 CTCCGACGGCTCATTCTTCTGTACAGCAAGCTGACCGTGGACAAGAGCAGATGGC
 AGCAGGGCAACGTGTTTCACTGCAGCGTGATGCACGAGGCCCTGCACAACCACTAC
 ACACAGAAGTCCCTGTCTCTGAGCCCCGGCAAA

(配列番号18)シグナル配列(1-57)、C3022 scFv(61-780)、
 linker(781-795)、C3E-7085(796-1515)、linker(1516-1521)、
 Hinge(1522-1566)、CH2(1567-1896)、CH3(1897-2217)

[図23]

RX3-0003-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTGCAGCTGGTGCAGTCTGGCGCCGAAGTGAAGAAACCAGGCGCCAGCG
TGAAGGTGTCCTGCAAGGCCAGCGGCTACACCTTTACCGGCTACTACATGCACTGG
GTGCGCCAGGCTCCAGGCCAGGGACTGGAATGGATGGGCGGATCAACCCCAATAG
CGGCGGCACCAACTACGCCCAGAAATTCCAGGGCAGAGTGACCATGACCCGGGACA
CCAGCATCAGCACCGCCTACATGGAAC TGAGCGGCCTGAGAAGCGACGACACCGCC
GTGTACTACTGTGCCTCTGGCTCTGTGCGGCACCCTTGGGGACAGGGAACACTCGT
GACCGTGTCCAGCGGTGGAGGCGGTT CAGGCGGAGGTGGCAGCGGCGGTGGCGGGA
GTCAGCCTGTGCTGACACAGCCTCCAAGCGCCTCTGGCACACCTGGCCAGAGAGTG
ACAATCAGCTGCAGCGGCAGCAGAAGCAACATCGGCGGCAACATCGTGTCTTGTA
TCAGCAGTTCCCCGGCACCGCCCCCTAGACTGCTGACCTACGCCGACAACCAGAGGC
CTAGCGGCGTGCCCGATAGATT CAGCGGCTCTAAGAGCGGCACCAGCGCCAGCCTG
GCCATCTCTGGCCTGCAGTCTGAGGACGAGGCCGACTACTATTGCGCCGCTGGGA
CGACAGCCTGAACGGCGTGGTGT TGGCGGAGGCACCAAGCTGACAGTGCTGGGAG
GCGGAGGATCTGAAGTGCAGCTGGTGGAA TCCGGGGGGGGCCTGGTGCAGCCTGGG
GGGAGCCTGAGACTGAGTTGTGCCGCTCTGGGGTGACATTTAACTACTATGGCAT
GTCTTGATCCGCCAGGCACCTGGAAAGGGCCTGGAGTGGGTGGCCAGCATCACTA
GGTCCGGCGGGCGAATCTACTATCCCGACAGCGTCAAGGGCAGGTT CACAATTTCC
CGCGAGAACACACAGAAAAC TCTGTACCTGCAGATGAATAGCCTGAGAGCCGAAGA
TACAGCTGTGTACTATTGCACTCTGGACGGCAGGGATGGGTGGGTGCGCTATTGGG
GGTGTGGAACCTGGTGACAGTCAGCTCCGGAGGAGGAGGATCTGGCGGAGGAGGC
AGTGGGGGAGGCGGGTCAAAC TTTATGCTCACTCAGCCGTCTCTGTTTCTGGCGT
ACCTGGCCAACGGGTGACCATTAGCTGTACGGGTAATACCGGGAATATCGGGTCTA
ACTACGTGAACTGGTATCAGCAGCTTCCAGGGACATGTCCCAAGTTGCTGATCTAT
CGCGACGACAAAAGACCCTCAGGGGTCCCTGACCGATTTAGTGGCAGCAAAAGCGG
TACTTCCGCTTCCCTGGCGATAACCGGCTTTCAGGCCGAAGATGAGGCAGACTACT
ATTGCCAGTCATATTCCAGCGGCTTCATCTTCGGAGGCGGAACTAAGCTGACAGTG
TTGGGCGGAGAACCCAAGAGCGCAGACAAGACCCACACCTGTCTCTCATGTCTCTGC
TCCAGAAGCTGCAGGCGGCCCTTCCGTGTTTCTGTTCCCTCCAAAGCCTAAGGACA
CCCTGATGATCAGCCGGACACCTGAAGTGACCTGCGTGGTGGTGGATGTGTCCAC
GAGGATCCCGAAGTGAAGTTCAATTGGTACGTGGACGGCGTGGAAGTGACAACGC
CAAGACCAAGCCTAGAGAGGAACAGTACAACAGCACCTACAGAGTGGTGTCTGTGC
TGACAGTGCTGCACCAGGACTGGCTGAACGGCAAAGAGTACAAGTGCAAGGTGTCC
AACAAAGGCCCTGCCTGCTCCTATCGAGAAAACCATCAGCAAGGCCAAGGGCCAGCC
TAGGGAACCCAGGTTTACACCCTGCCTCCATGCAGGGATGAGCTGACCAAGAACC
AGGTGTCCCTGTGGTGCCTGGTTAAGGGCTTCTACCCCTCCGATATCGCCGTGGAA
TGGGAGAGCAATGGCCAGCCAGAGAACAACTACAAGACAACCCCTCCTGTGCTGGA
CTCCGACGGCTCATTCCTTCTGTACAGCAAGCTGACCGTGGACAAGAGCAGATGGC
AGCAGGGCAACGTGTT CAGCTGCAGCGTGATGCACGAGGCCCTGCACAACCACTAC
ACACAGAAGTCCCTGTCTCTGAGCCCCGGCAA

(配列番号19) シグナル配列(1-57)、C3022 scFv(61-780)、
linker(781-795)、C3E-7096(796-1515)、linker(1516-1521)、
Hinge(1522-1566)、CH2(1567-1896)、CH3(1897-2217)

[図24]

TX3-0001-HC_k

MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQW
 VRQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTA
 VYYCARSFGFSSSYWYFDVWGQGTLVTVSSGGGGSGGGGSGGGGSDIQMTQSPSSLS
 ASVGDRVTITCKASQDVSTAVAWYQQKPGKAPKLLIYSASYRYTGVPSTRFSGSGSG
 TDFTLTISSLQPEDFAVYYCQQHYITPLTFGQGTKLEIKRTGGGGSEVQLVESGGG
 LVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIYYPD SVKG
 RFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGQGTILVTVSSGGGG
 SGGGGSGGGGSNFMLTQPSSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTAP
 KLLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGG
 TKLTVLGGEPSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVV
 VDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEY
 KCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPS
 DIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEA
 LHNHYTQKSLSLSPGK

(配列番号20) シグナル配列 (1-19)、HT1-11 scFv (21-265)、
 linker (266-270)、C3E-7085 (271-510)、linker (511-1512)、
 Hinge (513-527)、CH2 (528-637)、CH3 (638-744)

[図25]

TX3-0003-HC_k

MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQW
 VRQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTA
 VYYCARSFGFSSSYWYFDVWGQGTLVTVSSGGGGSGGGGSGGGGSDIQMTQSPSSLS
 ASVGDRVTITCKASQDVSTAVAWYQQKPGKAPKLLIYSASYRYTGVPSTRFSGSGSG
 TDFTLTISSLQPEDFAVYYCQQHYITPLTFGQGTKLEIKRTGGGGSEVQLVESGGG
 LVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIYYPD SVKG
 RFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGCGTLVTVSSGGGG
 SGGGGSGGGGSNFMLTQPSSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTCP
 KLLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGG
 TKLTVLGGEPSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVV
 VDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEY
 KCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPS
 DIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEA
 LHNHYTQKSLSLSPGK

(配列番号21) シグナル配列 (1-19)、HT1-11 scFv (21-265)、
 linker (266-270)、C3E-7096 (271-510)、linker (511-1512)、
 Hinge (513-527)、CH2 (528-637)、CH3 (638-744)

[図26]

CX3-0001-HC_k

MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYAFSNYLIEW
 VRQAPGGGLEWMGVINPGSGVTNYNEKFKGRVTITADTSTSTAYMELSSLRSEDTA
 VYYCARAEAWFAYWGQGLTVTVSSGGGGSGGGSGGGSDIVMTQSPDSLAVSLGE
 RATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGS
 GTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKVEIKGGGGSEVQLVESGGGL
 VQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIYYPDSVKGR
 FTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVAYWGQGLTVTVSSGGGGSG
 GGGSGGGGSGNFMLTQPSSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTAPK
 LLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGGT
 KLTVLGGEPKSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVV
 DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK
 CKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSD
 IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQVMHEAL
 HNHYTQKSLSLSPGK

(配列番号22) シグナル配列 (1-19)、hM23-H1L1 scFv (21-264)、
 linker (265-269)、C3E-7085 (270-509)、linker (510-511)、
 Hinge (512-526)、CH2 (527-636)、CH3 (637-743)

[図27]

CX3-0003-HC_k

MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYAFSNYLIEW
 VRQAPGGGLEWMGVINPGSGVTNYNEKFKGRVTITADTSTSTAYMELSSLRSEDTA
 VYYCARAEAWFAYWGQGLTVTVSSGGGGSGGGSGGGSDIVMTQSPDSLAVSLGE
 RATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLIYWASTRESGVPDRFSGSGS
 GTDFTLTISSLQAEDVAVYYCQRYYGYPWTFGQGTKVEIKGGGGSEVQLVESGGGL
 VQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIYYPDSVKGR
 FTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVAYWGCGTGLTVTVSSGGGGSG
 GGGSGGGGSGNFMLTQPSSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTCPK
 LLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQSYSSGFIFGGGT
 KLTVLGGEPKSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVV
 DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK
 CKVSNKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSD
 IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSQVMHEAL
 HNHYTQKSLSLSPGK

(配列番号23) シグナル配列 (1-19)、hM23-H1L1 scFv (21-264)、
 linker (265-269)、C3E-7096 (270-509)、linker (510-511)、
 Hinge (512-526)、CH2 (527-636)、CH3 (637-743)

[図28]

RX3-0001-HC_k
 MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTGYIMHW
 VRQAPGQGLEWMGRINPNSGGTNYAQKFQGRVTMTDRDTSISTAYMELSGLRSDDTA
 VYYCASGSVRHPWGQGTLLTVSSGGGGSGGGSGGGGSPVLTQPPSASGTPGQQRV
 TISCSGSRSNIGGNIVSWYQQFPGTAPRLITYADNQRPSGVPDRFSGSKSGTSASL
 AISGLQSEDEADYYCAAWDDSLNGVVFSGGKLTVLGGGGSEVQLVESGGGLVQPG
 GSLRLSCAASGVTFNYYGMSWIRQAPGKLEWVASITRSGGRIYYPDSVKGRFTIS
 RENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVAYWGQGTLLTVSSGGGGSGGGG
 SGGGGSNFMLTQPSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTAPKLLIY
 RDDKRPSGVPDRFSGSKSGTSASLAITGFAEDEADYYCQSYSSGFIFGGGKLT
 LGGEPKSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSH
 EDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKV
 NKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVE
 WESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHY
 TQKSLSLSPGK
 (配列番号24) シグナル配列 (1-19)、C3022 scFv (21-260)、
 linker (261-265)、C3E-7085 (266-505)、linker (506-507)、
 Hinge (508-522)、CH2 (523-632)、CH3 (633-739)

[図29]

RX3-0003-HC_k
 MKHLWFFLLLVAAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTGYIMHW
 VRQAPGQGLEWMGRINPNSGGTNYAQKFQGRVTMTDRDTSISTAYMELSGLRSDDTA
 VYYCASGSVRHPWGQGTLLTVSSGGGGSGGGSGGGGSPVLTQPPSASGTPGQQRV
 TISCSGSRSNIGGNIVSWYQQFPGTAPRLITYADNQRPSGVPDRFSGSKSGTSASL
 AISGLQSEDEADYYCAAWDDSLNGVVFSGGKLTVLGGGGSEVQLVESGGGLVQPG
 GSLRLSCAASGVTFNYYGMSWIRQAPGKLEWVASITRSGGRIYYPDSVKGRFTIS
 RENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVAYWGCGLTVTVSSGGGGSGGGG
 SGGGGSNFMLTQPSVSGVPGQRTISCTGNTGNIGSNYVNWYQQLPGTAPKLLIY
 RDDKRPSGVPDRFSGSKSGTSASLAITGFAEDEADYYCQSYSSGFIFGGGKLT
 LGGEPKSADKTHTCPPCPAPEAAGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSH
 EDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKV
 NKALPAPIEKTISKAKGQPREPQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVE
 WESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHY
 TQKSLSLSPGK
 (配列番号25) シグナル配列 (1-19)、C3022 scFv (21-260)、
 linker (261-265)、C3E-7096 (266-505)、linker (506-507)、
 Hinge (508-522)、CH2 (523-632)、CH3 (633-739)

[図30]

TX3-0002-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTTTCAGCTGGTGCAGTCTGGCGCCGAAAGTAAAAAACCTGGCGCCTCCG
TGAAGGTGTCTCTGCAAGGCTAGCGGCTACACCTTTACCACAGCCGGCATGCAGTGG
GTCCGACAGGCTCCTGGACAAGGACTCGAGTGGATGGGCTGGATCAATACCCACAG
CGGCGTGCCCAAATACGCCGAGGATTTCAAGGGCAGAGTGACCATCAGCGCCGACA
CCAGCACAAGCACAGCCTACCTGCAGCTGAGCAGCCTGAAGTCTGAGGACACCGCC
GTGTACTACTGTGCCAGAAGCGGCTTTGGCAGCAGCTACTGGTACTTCGATGTGTG
GGGCCAGGGCACCTGGTCACAGTTTCTAGCGGAGGCGGAGGATCTGGTGGCGGAG
GAAGTGGCGGAGGCGGTTCTGATATCCAGATGACACAGAGCCCCAGCAGCCTGTCT
GCCTCTGTGGGAGACAGAGTGACAATTACATGCAAGGCCAGCCAGGACGTGTCCAC
AGCAGTTGCTTGGTACCAGCAGAAGCCTGGCAAGGCCCCCTAAGCTGCTGATCTACA
GCGCCAGCTACAGATACACCGGCGTGCCAAGCAGATTTTCCGGCTCTGGCAGCGGC
ACCGATTTACCCCTGACCATATCTAGCCTGCAGCCAGAGGACTTCGCCGTGTATTA
TTGCCAGCAGCACTACATCACCCCTCTGACCTTTGGCCAGGGGACCAAGCTCGAGA
TCAAGAGAACAGGTGGCGGCGGATCTGAGGTGCAGCTGGTTGAAAGCGGCGGAGGA
CTTGTTTCAGCCTGGCGGATCTCTGAGACTGAGCTGTGCTGCTAGCGGCGTGACCTT
CAACTACTACGGCATGAGCTGGATCCGCCAAGCTCCAGGCAAGGGCCTCGAGTGGG
TTGCCAGCATTACAAGATCTGGCGGCGCATCTACTACCCCGACTCTGTGAAGGGC
AGATTCACAATCAGCCGCGAGAACACCCAGAAAACCTGTACCTGCAGATGAACCTC
CCTGAGAGCCGAGGATACAGCTGTGTACTATTGCACCCTGGACGGCAGAGATGGCT
GGGTTGCATATTGGGGACAGGGAACCCCTCGTGACCGTGTCTCTGCCTCTACAAAG
GGCCCTAGCGTGTTCCCTCTGGCTCCTAGCAGCAAGAGCACAAGCGGAGGAACAGC
CGCTCTGGGCTGTCTGGTCAAGGACTACTTTCCCGAGCCTGTGACAGTGTCTTGA
ACTCTGGCGCTCTGACATCCGGCGTGCACACATTTCCAGCCGTGCTGCAAAGCAGC
GGCCTGTACTCTCTGAGCAGCGTCGTGACAGTGCCTAGCAGCTCTCTGGGCACCCA
GACCTACATCTGCAATGTGAACCACAAGCCTAGCAACACCAAGGTGGACAAGAGAG
TGGAACCCCAAGAGCTGCGACAAGACCCACACCTGTCCTCCATGTCTGACCTGAA
GCTGCTGGCGGCCCTTCCGTGTTTCTGTTCCCTCCAAAGCCTAAGGACACCCCTGAT
GATCAGCAGAACCCCTGAAGTGACCTGCGTGGTGGTGGATGTGTCTCACGAGGACC
CAGAAGTGAAGTTCAATTGGTACGTGGACGGCGTGGAAGTGCACAACGCCAAGACC
AAGCCTAGAGAGGAACAGTACAACAGCACCTACAGAGTGGTGTCCGTGCTGACAGT
GCTGCACCAGGATTGGCTGAACGGCAAGAGTACAAGTGCAAGGTGTCCAACAAGG
CCCTGCCTGCTCCTATCGAGAAAACCATCAGCAAGGCCAAGGGCCAGCCTAGGGAA
CCCCAGGTTTACACCCCTTCCCTCCATGCCGGGATGAGCTGACCAAGAACCAGGTGTC
CCTGTGGTGTCTCGTGAAGGGCTTCTACCCCTCCGATATCGCCGTGGAATGGGAGA
GCAATGGCCAGCCTGAGAACAACTACAAGACAACCCCTCCTGTGCTGGACAGCGAC
GGCTCATTTCTTCTGTACAGCAAGCTGACCGTGGACAAGTCCAGATGGCAGCAGGG
CAACGTGTTTCAGCTGCTCCGTGATGCACGAGGCCCTGCACAACCACTACACACAGA
AGTCCCTGTCTCTGAGCCCCGGCAA

(配列番号26)シグナル配列(1-57)、HT1-11 scFv(61-795)、
linker(796-810)、C3E-7085-VH(811-1164)、CH1(1165-
1458)Hinge(1459-1503)、CH2(1504-1833)、CH3(1834-2154)

[図31]

CX3-0002-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTTTCACTGCTGGTTTCACTGCTGGCGCCGAAGTGAAGAAACCTGGCGCCTCTG
TGAAGGTGTCCTGCAAGGCCTCTGGCTACGCCTTCAGCAACTACCTGATCGAGTGG
GTCCGACAGGCCCCCTGGACAAGGACTTGAATGGATGGGCGTGATCAACCCTGGCAG
CGGCGTGACCAACTACAACGAGAAGTTCAAGGGCAGAGTGACCATCACCGCCGACA
CCAGCACAAGCACCGCCTACATGGAAGTGAAGCAGCCTGAGAAGCGAGGACACCGCC
GTGTACTATTGTGCCAGAGCCGAGGCTTGGTTTGCTATTGGGGACAGGGCACCCCT
GGTCACCGTTAGCTCTGGTGGAGGCGGTTTCAAGGCGGAGGTGGCAGCGGCGGTGGCG
GGAGTGATATTGTGATGACACAGAGCCCCGACAGCCTGGCCGTGTCTCTTGGAGAA
AGAGCCACCATCAACTGCAAGAGCAGCCAGAGCCTGCTGTACTCCAGCAACCAGAA
GAACTACCTGGCCTGGTATCAGCAGAAGCCCGGCCAGCCTCCTAAGCTGCTGATCT
ACTGGGCCAGCACCAGAGAAAGCGGCGTGCCCGATAGATTTTCTGGCTCTGGCAGC
GGCACCGACTTCACCTTGACAATTTCTAGCCTGCAAGCCGAGGACGTGGCCGTGTA
CTACTGCCAGAGATATTACGGCTACCCCTGGACCTTTGGCCAGGGCACCAAGGTGG
AAATCAAGGgagggcgaggatctGAGGTGCAGCTTGTGAATCAGGTGGCGGACTT
GTGCAGCCTGGCGGAAGCCTCAGACTTAGCTGTGCTGCTTCCGGCGTGACCTTCAA
CTACTACGGCATGAGCTGGATCAGGCAGGCACCTGGAAAGGGCCTCGAGTGGGTTG
CCTCTATCACAAGAAGCGGCGGCAGAACTACTACCCCGACTCTGTGAAAGGCCGG
TTCACCATCTCCAGAGAGAAACACCCAGAAAACACTCTATCTCCAGATGAACCTCTCT
GCGCGCCGAAGATACAGCCGTCTATTACTGCACCCCTGGACGGCAGAGATGGCTGGG
TTGCATATTGGGGACAGGGAACCCCTCGTGACCGGTGTCTCTGCCTCTACAAAGGGC
CCTAGCGTGTTCCCTCTGGCTCCTAGCAGCAAGTCTACCAGCGGAGGAACAGCCGC
TCTGGGCTGTCTGGTCAAGGACTACTTTCCCGAGCCAGTGACAGTGTCTGGAAGT
CTGGCGCTCTGACATCCGGCGTGACACATTTCCAGCCGTGCTGCAAAGCTCCGGC
CTGTACTCTCTGAGCAGCGTGGTCACAGTGCCAAGCTCTAGCCTGGGCACCCAGAC
CTACATCTGCAATGTGAACCACAAGCCTAGCAACACCAAGGTGACAAGAGAGTGG
AACCACAAGAGCTGCGACAAGACCCACACCTGTCTCCATGTCTGCTCCAGAAGCT
GCAGGCGGCCCTTCCGTGTTTCTGTCTCCCTCCAAAGCCTAAGGACACCCCTGATGAT
CAGCCGGACACCTGAAGTGACCTGCGTGGTGGTGGATGTGTCCACGAGGATCCCG
AAGTGAAGTTCAATTGGTACGTGGACGGCGTGGAAGTGACAACGCCAAGACCAAG
CCTAGAGAGGAACAGTACAACAGCACCTACAGAGTGGTGTCTGTGCTGACAGTGTCT
GCACCAGGACTGGCTGAACGGCAAAGAGTACAAGTGCAAGGTGTCCAACAAGGCC
TGCCTGCTCCTATCGAGAAAACCATCAGCAAGGCCAAGGGCCAGCCTAGGGAAACC
CAGGTTTACACCCTGCCTCCATGCAGGGATGAGCTGACCAAGAACCAGGTGTCCCT
GTGGTGCTGGTTAAGGGCTTCTACCCCTCCGATATCGCCGTGGAATGGGAGAGCA
ATGGCCAGCCAGAGAACTACAAGACAACCCCTCCTGTGCTGGACTCCGACGGC
TCATTCTTCTGTACAGCAAGCTGACCGTGGACAAGAGCAGATGGCAGCAGGGCAA
CGTGTTTCACTGACGCTGATGCACGAGGCCCTGCACAACCACTACACACAGAAGT
CCCTGTCTCTGAGCCCCGGCAA

(配列番号27)シグナル配列(1-57)、hM23-H1L1 scFv(61-792)、
linker(793-807)、C3E-7085-VH(808-1161)、CH1(1162-
1455)Hinge(1458-1500)、CH2(1501-1830)、CH3(1831-2151)

[図32]

RX3-0002-HC_k

ATGAAGCACCTGTGGTTCTTTCTGCTGCTGGTGGCCGCTCCTAGATGGGTGCTGTC
TGGACAGGTGCAGCTGGTGCAGTCTGGCGCCGAAGTGAAGAAACCAGGCGCCAGCG
TGAAGGTGTCTTCAAGGCCAGCGGCTACACCTTTACCGGCTACTACATGCACTGG
GTGCGCCAGGCTCCAGGCCAGGGACTGGAATGGATGGGCGGATCAACCCCAATAG
CGGCGGCACCAACTACGCCCAGAAATTCCAGGGCAGAGTGACCATGACCCGGGACA
CCAGCATCAGCACCGCCTACATGGAATGAGCGGCCTGAGAAGCGACGACACCGCC
GTGTACTACTGTGCCTCTGGCTCTGTGCGGCACCCTTGGGGACAGGGAACACTCGT
GACCGTGTCCAGCGGTGGAGGCGGTTTCAGGCGGAGGTGGCAGCGGCGGTGGCGGGA
GTCAGCCTGTGCTGACACAGCCTCCAAGCGCCTCTGGCACACCTGGCCAGAGAGTG
ACAATCAGCTGCAGCGGCAGCAGAAGCAACATCGGCGGCAACATCGTGTCTGGTA
TCAGCAGTTCCCCGGCACCGCCCCCTAGACTGCTGACCTACGCCGACAACCAGAGGC
CTAGCGGCGTGCCCGATAGATTACAGCGGCTCTAAGAGCGGCACCAGCGCCAGCCTG
GCCATCTCTGGCCTGCAGTCTGAGGACGAGGCGGACTACTATTGCGCCGCTGGGA
CGACAGCCTGAACGGCGTGGTGTGGCGGAGGCACCAAGCTGACAGTGCTGGGAG
GCGGAGGATCTGAGGTGCAGCTTGTGAAATCAGGTGGCGGACTTGTGCAGCCTGGC
GGAAGCCTCAGACTTAGCTGTGCTGCTTCCGGCGTGACCTTCAACTACTACGGCAT
GAGCTGGATCAGGCAGGCACCTGGAAAGGGCCTCGAGTGGGTGCCTCTATCACAA
GAAGCGGCGGCAGAACTCTACTACCCCGACTCTGTGAAAGGCCGTTTACCATCTCC
AGAGAGAACACCCAGAAAACACTCTATCTCCAGATGAACTCTCTGCGCGCCGAAGA
TACAGCCGTCTATTACTGCACCCTGGACGGCAGAGATGGCTGGGTGTCATATTGGG
GACAGGGAACCCCTCGTGACCGTGTCTCTGCCTCTACAAAGGGCCCTAGCGTGTTC
CCTCTGGCTCCTAGCAGCAAGTCTACCAGCGGAGGAACAGCCGCTCTGGGCTGTCT
GGTCAAGGACTACTTTCCCGAGCCAGTGACAGTGTCTGGAACCTCTGGCGCTCTGA
CATCCGGCGTGCACACATTTCCAGCCGTGTGCAAGCTCCGGCCCTGTACTCTCTG
AGCAGCGTGGTCACAGTGCCAAGCTCTAGCCTGGGCACCCAGACCTACATCTGCAA
TGTGAACCACAAGCCTAGCAACACCAAGGTGACAAAGAGAGTGGAACCCAAGAGCT
GCGACAAGACCCACACCTGTCCTCCATGTCTGCTCCAGAAGCTGCAGGCGGCCCT
TCCGTGTTTCTGTTCCCTCCAAGCCTAAGGACACCCTGATGATCAGCCGGACACC
TGAAGTGACCTGCGTGGTGGTGGATGTGTCCACGAGGATCCCGAAGTGAAGTTCA
ATTGGTACGTGGACGGCGTGAAGTGACAAACGCCAAGACCAAGCCTAGAGAGGAA
CAGTACAACAGCACCTACAGAGTGGTGTCTGTGCTGACAGTGCTGCACCAGGACTG
GCTGAACGGCAAAGAGTACAAGTGCAAGGTGTCCAACAAGGCCCTGCCTGCTCCTA
TCGAGAAAACCATCAGCAAGGCCAAGGGCCAGCCTAGGGAAACCCAGGTTTACACC
CTGCCTCCATGCAGGGATGAGCTGACCAAGAACCAGGTGTCCCTGTGGTGCCTGGT
TAAGGGCTTCTACCCCTCCGATATCGCCGTGGAATGGGAGAGCAATGGCCAGCCAG
AGAACAACCTACAAGACAACCCCTCCTGTGCTGGACTCCGACGGCTCATTCCTTCCTG
TACAGCAAGCTGACCGTGGACAAGAGCAGATGGCAGCAGGGCAACGTGTTTACAGCTG
CAGCGTGATGCACGAGGCCCTGCACAACCACTACACACAGAAGTCCCTGTCTCTGA
GCCCCGGCAAA

(配列番号28) シグナル配列(1-57)、C3022 scFv(61-780)、
linker(781-795)、C3E-7085-VH(796-1149)、CH1(1150-
1443) Hinge(1444-1488)、CH2(1489-1818)、CH3(1819-2139)

[図33]

TX3-0002-HC_k

MKHLWFFLLLVAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTTAGMQW
 VRQAPGQGLEWMGWINTHSGVPKYAEDFKGRVTISADTSTSTAYLQLSSLKSEDTA
 VYYCARSGFGSSYWFVDVWGQGTLVTVSSGGGGSGGGGSGGGGSDIQMTQSPSSLS
 ASVGDRVITITCKASQDVSTAVAWYQQKPGKAPKLLIYSASYRYTGVPSTRFSGSGSG
 TDFTLTITSSLPEDFAVYYCQQHYITPLTFGQGTKLEIKRTGGGGSEVQLVESGGG
 LVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIIYPDSVKG
 RFTISRENTQKTLTYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGQGTILVTVSSASTK
 GPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTFSWNSGALTSGVHTFPAVLQSS
 GLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKTHTCPPCPAPE
 AAGGPSVFLEFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKT
 KPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE
 PQVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSD
 GSFFLYSKLTVDKSRWQQGNVFSVMSHEALHNHYTQKSLSLSPGK

(配列番号29)シグナル配列(1-19)、HT1-11 scFv(21-265)、
 linker(266-270)、C3E-7085-VH(271-388)、CH1(389-
 486) Hinge(487-501)、CH2(502-611)、CH3(612-718)

[図34]

CX3-0002-HC_k

MKHLWFFLLLVAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYAFSNNYLIEW
 VRQAPGQGLEWMGVINPGSGVTNYYNEKFKGRVTITADTSTSTAYMELSSSLRSEDTA
 VYYCARAEAWFAYWGQGTILVTVSSGGGGSGGGGSGGGGSDIVMTQSPDSLAVSLGE
 RATINCKSSQSLLYSSNQKNYLAWYQQKPGQPPKLLIYWASTRESGVDPDRFSGSGS
 GTDFTLTITSSLAEDVAVYYCQRYYGYPWTFGQGTKVEIKGGGGSEVQLVESGGGL
 VQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIIYPDSVKG
 FTISRENTQKTLTYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGQGTILVTVSSASTK
 PSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTFSWNSGALTSGVHTFPAVLQSSG
 LYSLSVTVPSSSLGTQTYICNVNHKPSNTKVDKRVPEPKSCDKTHTCPPCPAPEA
 AGGPSVFLEFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTK
 PREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREP
 QVYTLPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDG
 SFFLYSKLTVDKSRWQQGNVFSVMSHEALHNHYTQKSLSLSPGK

(配列番号30)シグナル配列(1-19)、hM23-H1L1 scFv(21-264)、
 linker(265-269)、C3E-7085-VH(270-387)、CH1(388-
 485) Hinge(486-500)、CH2(501-610)、CH3(611-717)

[図35]

RX3-0002-HC_k
 MKHLWFFLLLVAAPRWVLSGQVQLVQSGAEVKKPGASVKVSCKASGYTFTGYIMHW
 VRQAPGQGLEWMGRINPNSGGTNYAQKFQGRVTMTRDTSISTAYMELSGLRSDDTA
 VYYCASGSVRHPWGQGTLLTVSSGGGGSGGGSGGGGSPVLTQPPSASGTPGQRV
 TISCSGSRSNIGGNIVSWYQQFPGTAPRLITYADNQRPSGVPDRFSGSKSGTSASL
 AISGLQSEDEADYYCAAWDDSLNGVVFGGGTKLTVLGGGGSEVQLVESGGGLVQPG
 GSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITRSGGRIYYPDSVKGRFTIS
 RENTQKTLTYLQMNSLRAEDTAVYYCTLDGRDGWVAYWGQGTLLTVSSASTKGPSVF
 PLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSL
 SSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPEAAGGP
 SVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREE
 QYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYT
 LPPCRDELTKNQVSLWCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFL
 YSKLTVDKSRWQQGNVFSVMHEALHNHYTQKSLSLSPGK
 (配列番号31) シグナル配列 (1-19)、C3022 scFv (21-260)、
 linker (261-265)、C3E-7085-VH (266-383)、CH1 (384-
 481) Hinge (482-496)、CH2 (497-606)、CH3 (607-713)

[図36]

C3E-7085の重鎖CDR1のアミノ酸配列
 GVTFNYYG
 (配列番号32)

C3E-7085の重鎖CDR2のアミノ酸配列
 ITRSGGRI
 (配列番号33)

C3E-7085の重鎖CDR3のアミノ酸配列
 TLDGRDGWVAY
 (配列番号34)

C3E-7085の軽鎖CDR1のアミノ酸配列
 TGNIGSNY
 (配列番号35)

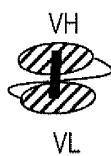
C3E-7085の軽鎖CDR2のアミノ酸配列
 RDD
 (配列番号36)

C3E-7085の軽鎖CDR3のアミノ酸配列
 QSYSSGFI
 (配列番号37)

[図37]

GGGGSリンカー
GGGGS
(配列番号38)

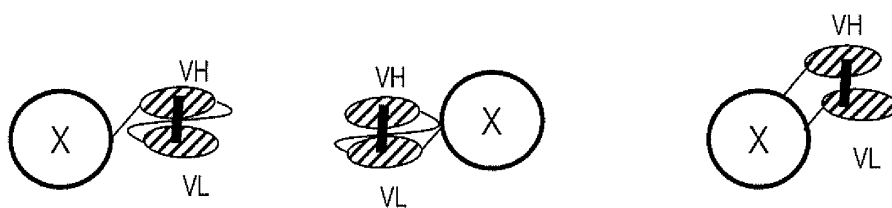
[図38A]



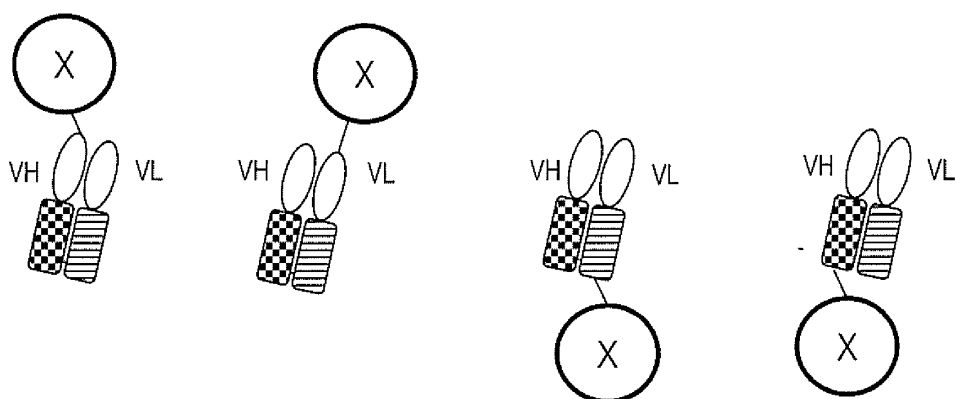
[図38B]



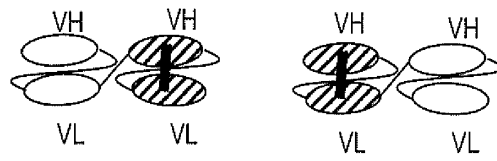
[図38C]



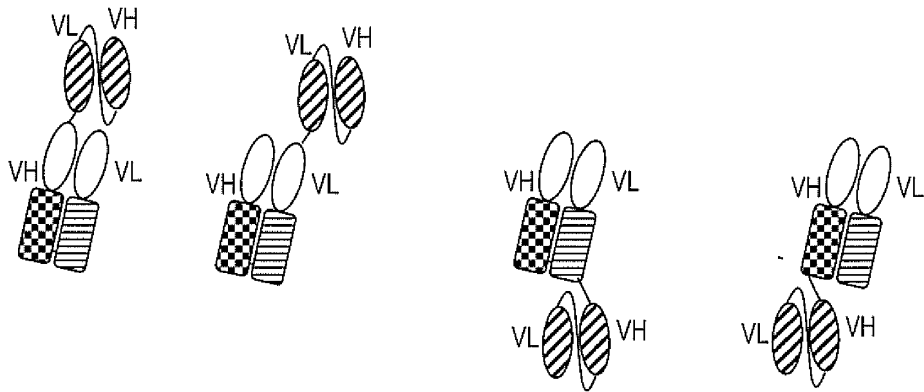
[図38D]



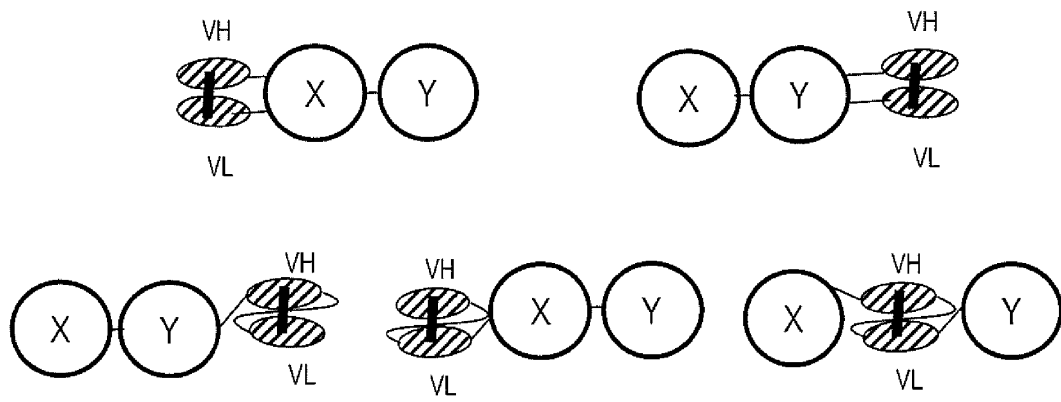
[図38E]



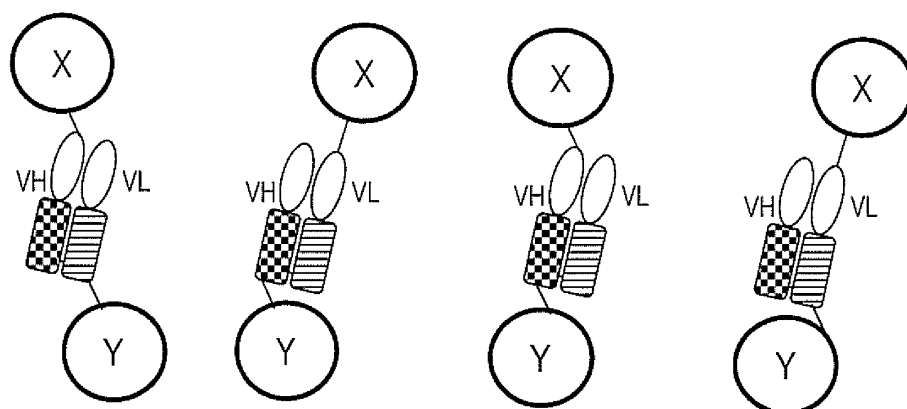
[図38F]



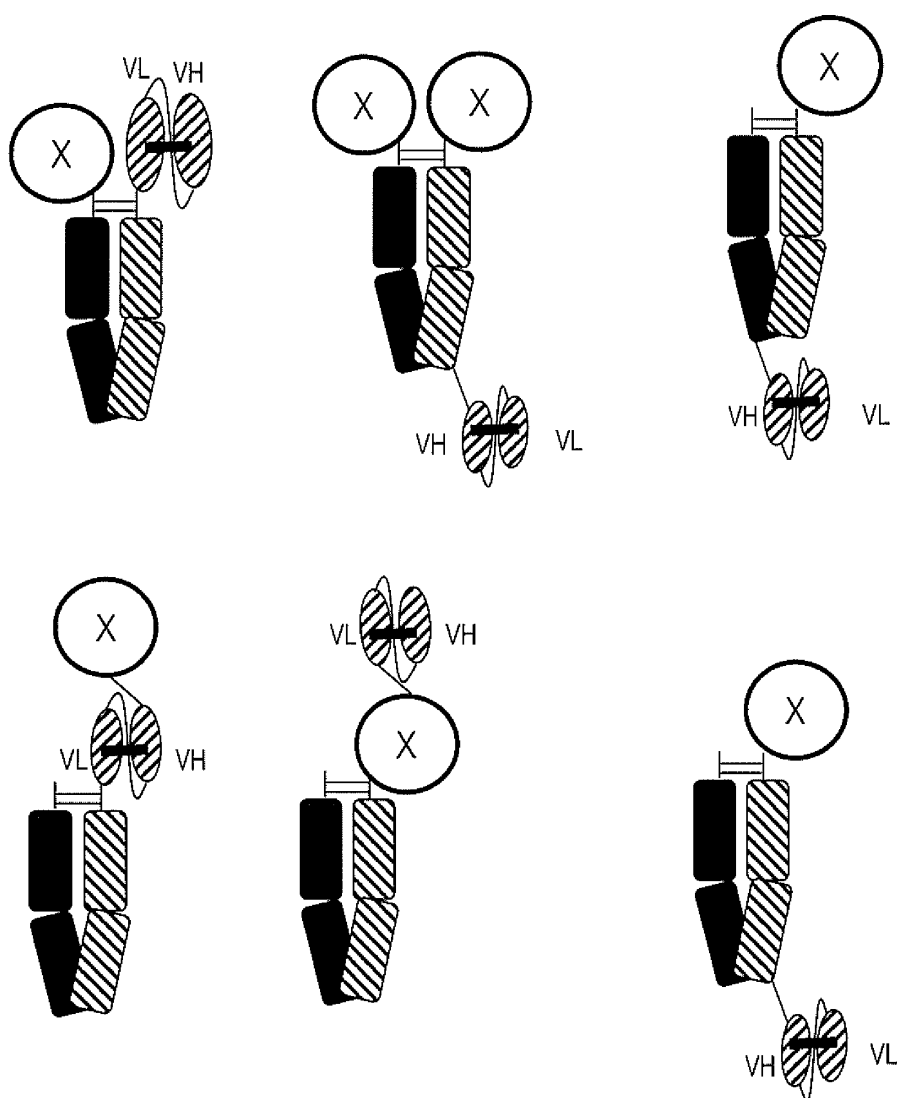
[図39A]



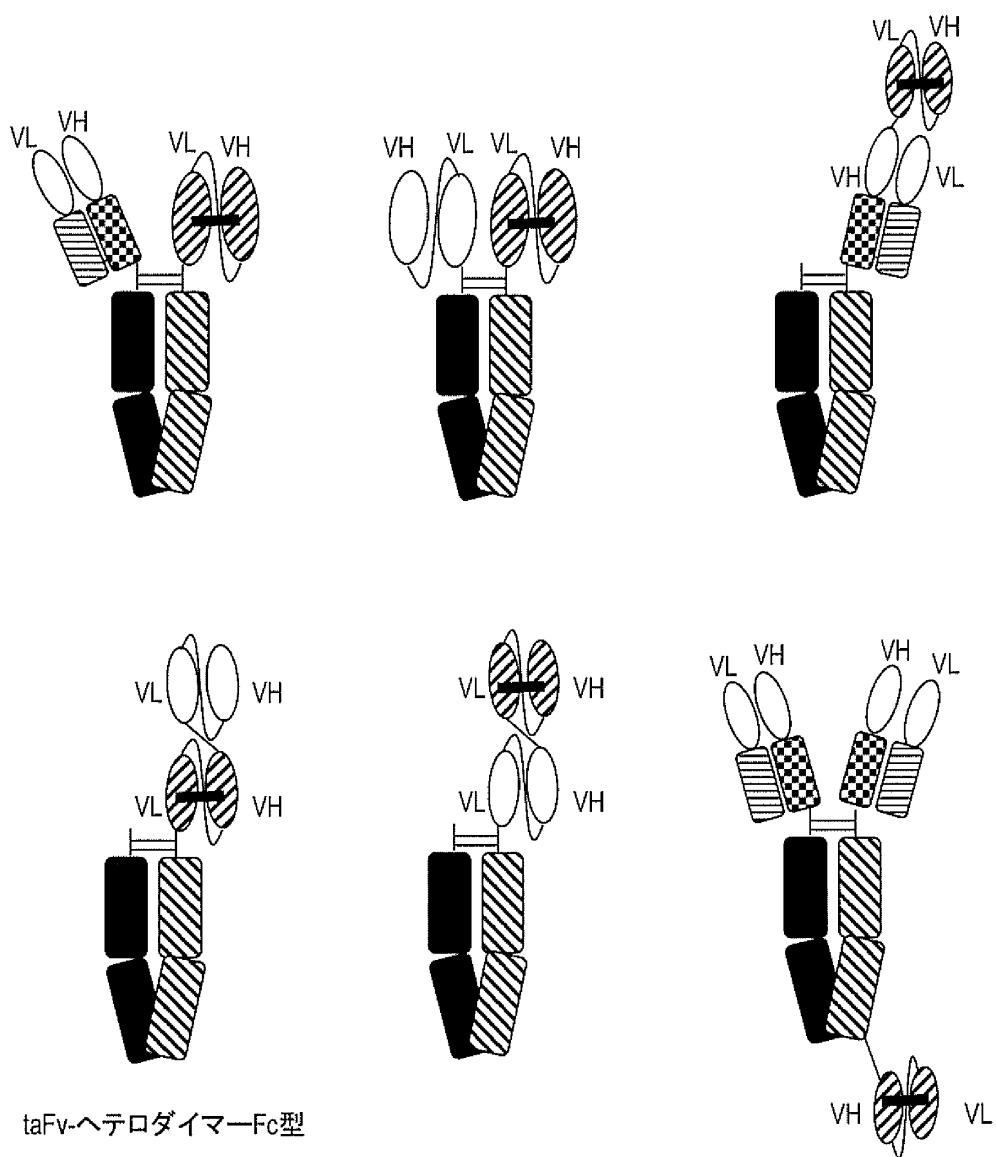
[図39B]



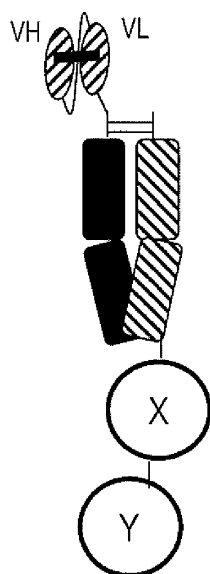
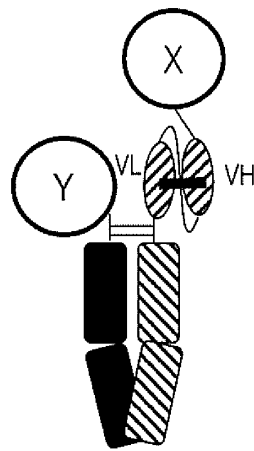
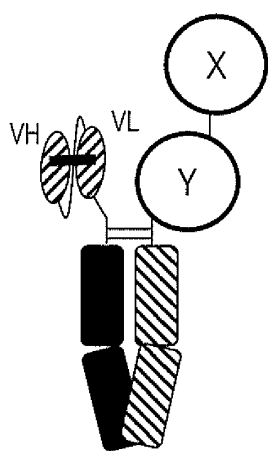
[図40A]



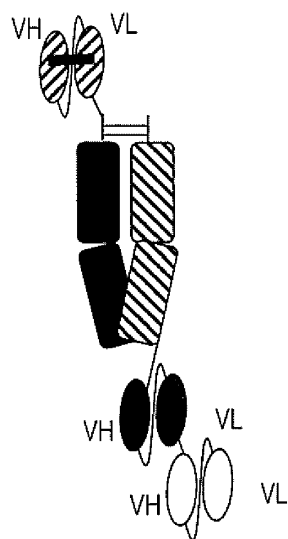
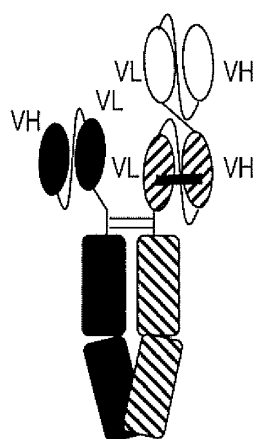
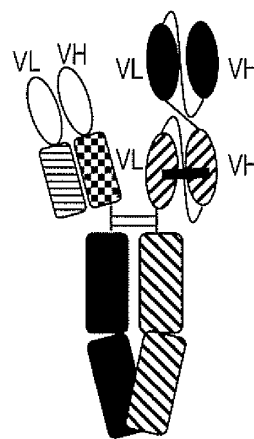
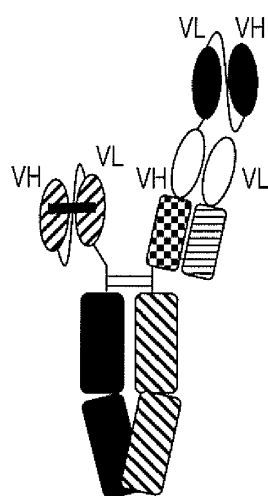
[図40B]



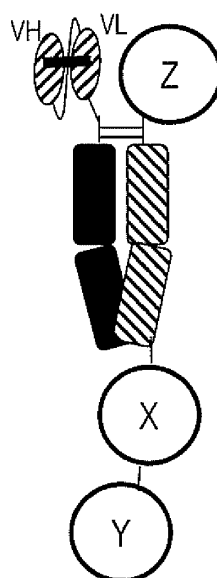
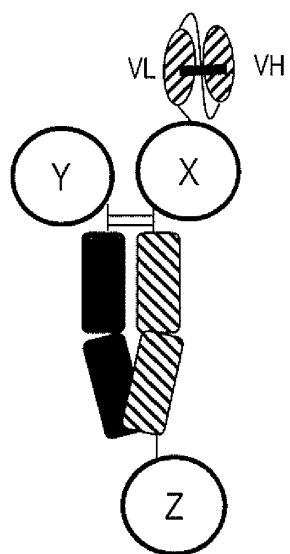
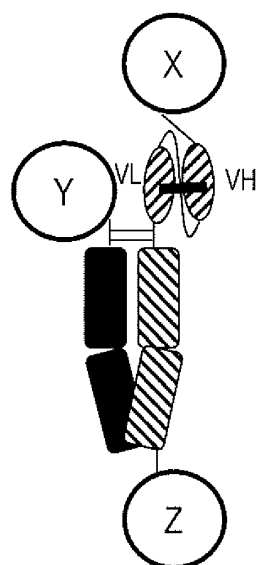
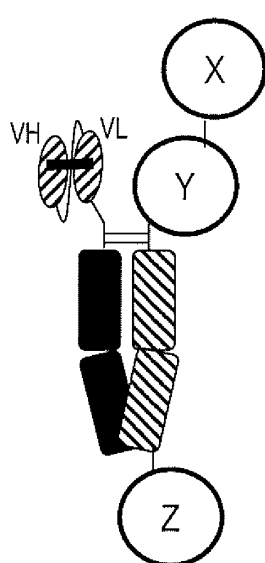
[図41A]



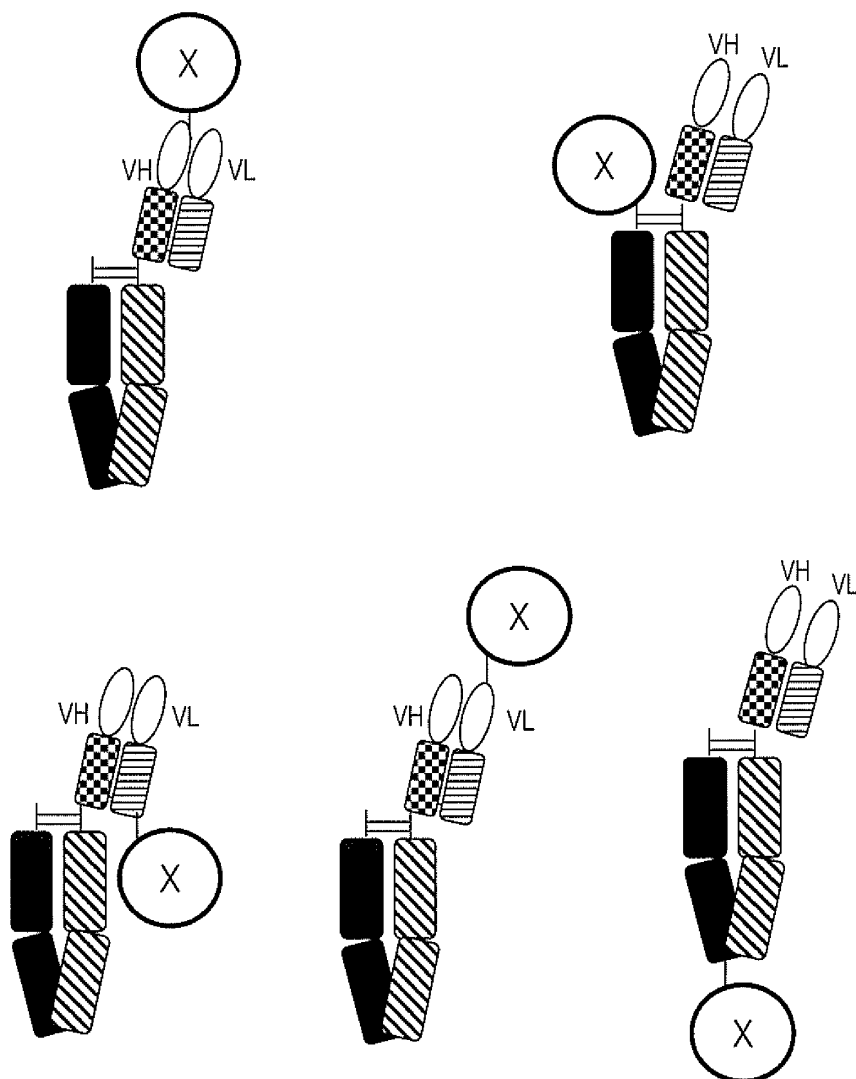
[図41B]



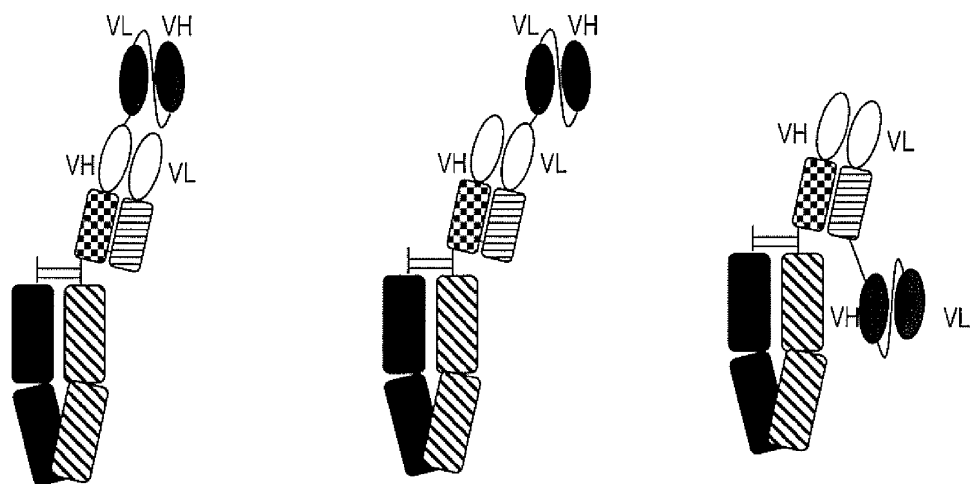
[図42]



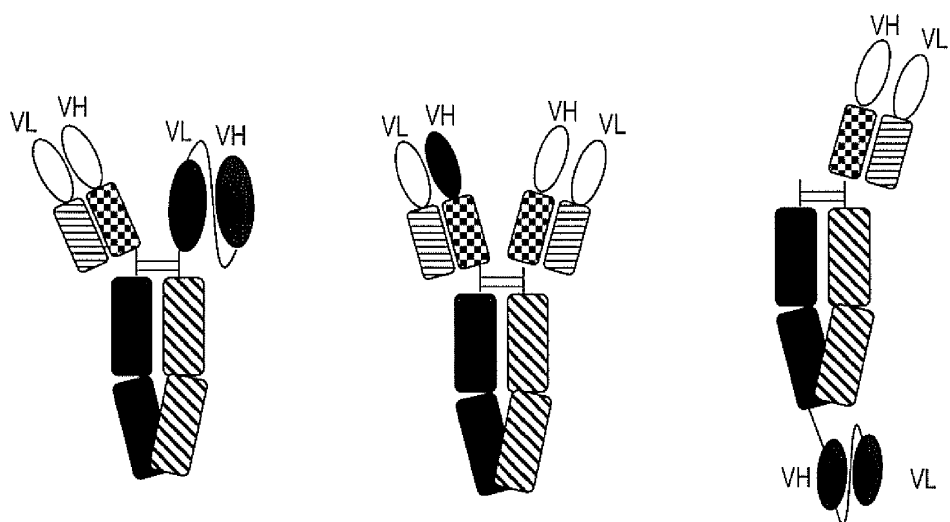
[図43A]



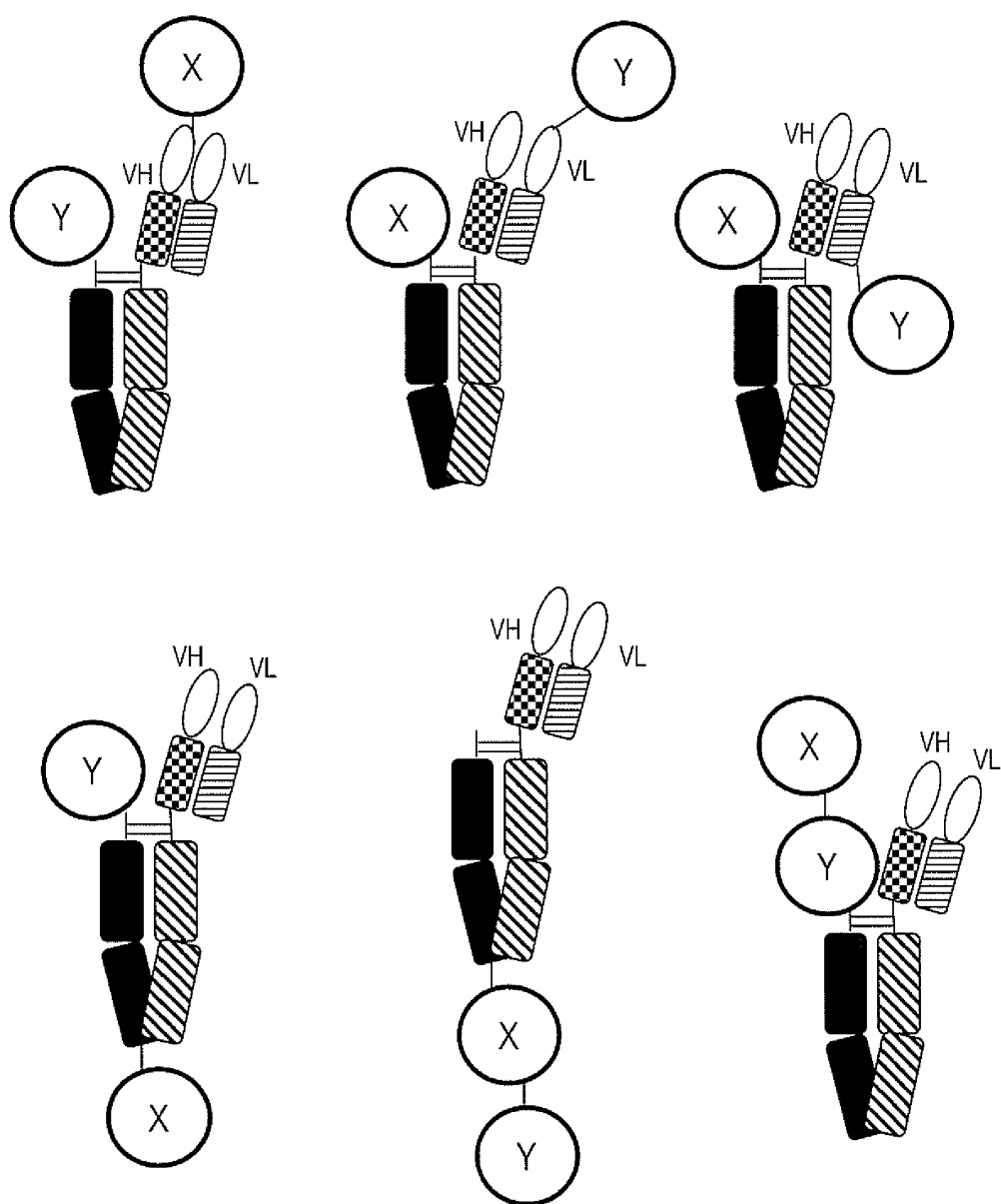
[図43B]



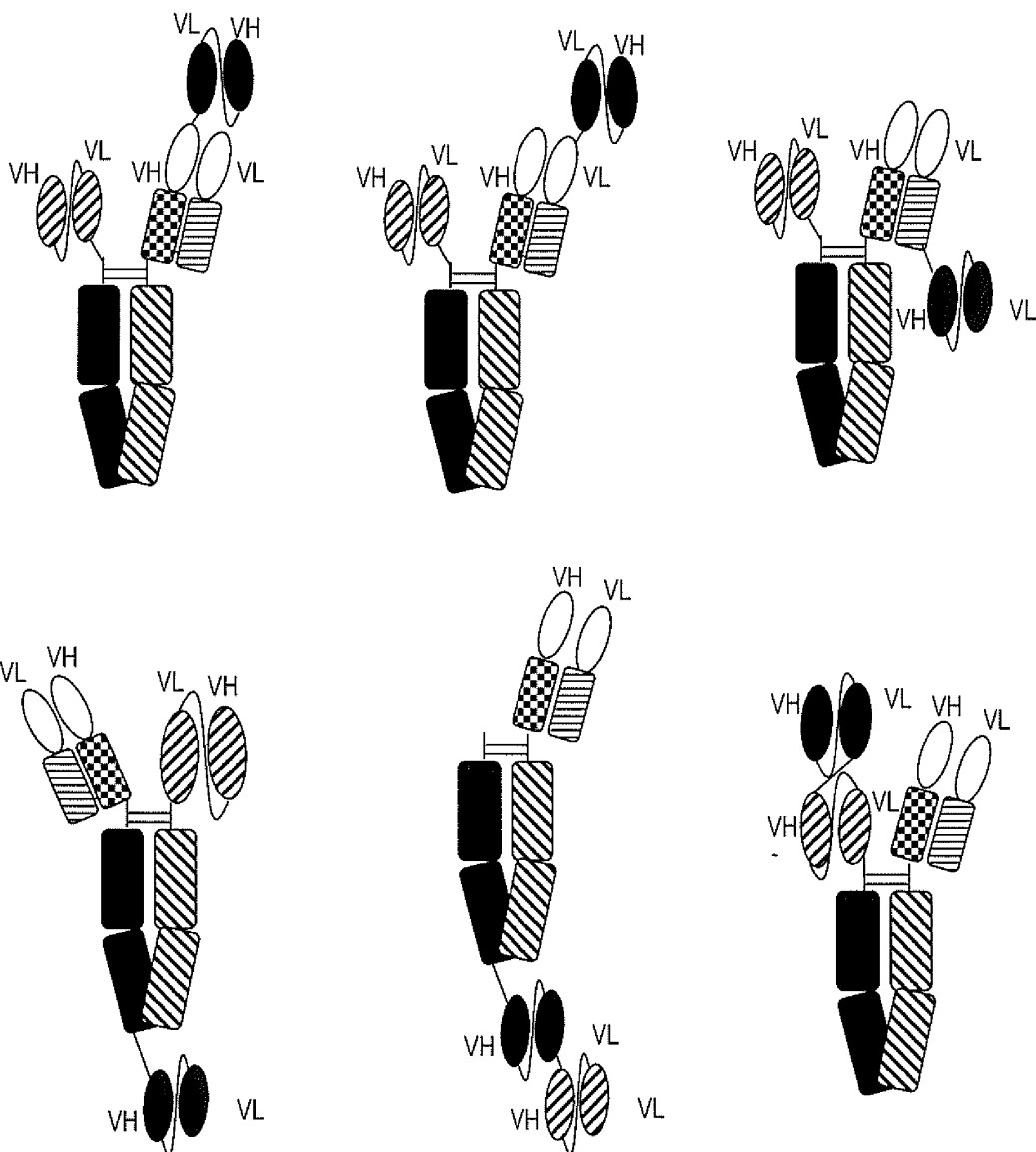
scFv-Fab-ヘテロダイマーFc型



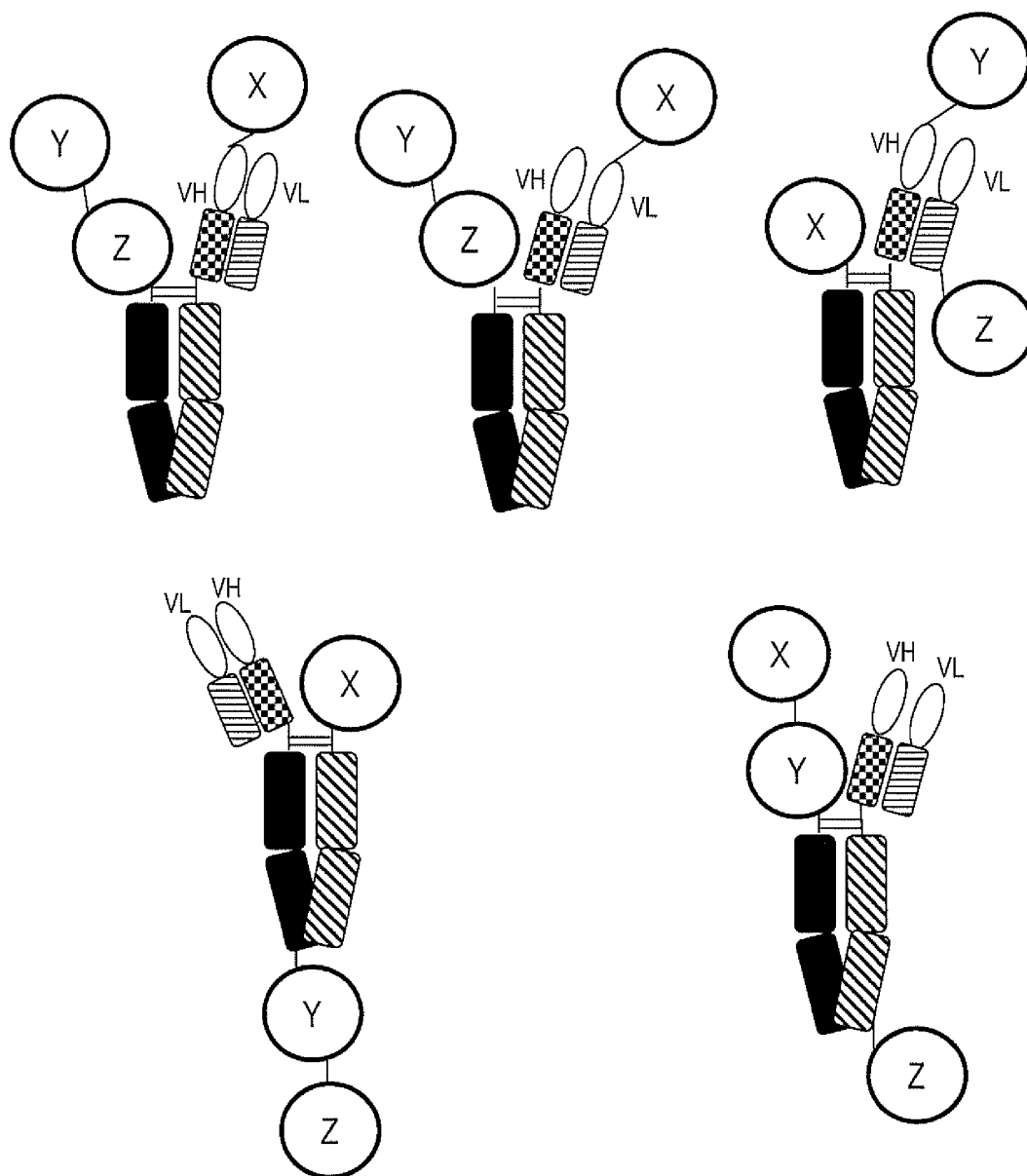
[図44A]



[図44B]



[図45]



[図46]

C3E-7097

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKCLEWVASITRSGG
 RIYYPDsvKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDgWVAYWgQGT
 LVTvSSGGGGSGGGGSGGGGsnFMLTQPSSvSGVPgQRVTISCTGNTGNIGsnYVN
 WYQQLPGTAPKLLIYRDDKRPSGVPDRFSGSKSGTSASLAITGFQAEDEADYYCQS
 YSSGFIFGCGTKLTVL

(配列番号39)

[図47]

C3E-7093の重鎖CDR1のアミノ酸配列

GVTFNYYG

(配列番号40)

C3E-7093の重鎖CDR2のアミノ酸配列

ITSSGGRI

(配列番号41)

C3E-7093の重鎖CDR3のアミノ酸配列

TLDGRDGVVAY

(配列番号42)

C3E-7093の軽鎖CDR1のアミノ酸配列

TGNIGSNY

(配列番号43)

C3E-7093の軽鎖CDR2のアミノ酸配列

RND

(配列番号44)

C3E-7093の軽鎖CDR3のアミノ酸配列

QSYSSGFI

(配列番号45)

[図48]

C3E-7093-Fab

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITSSGG
RIYYPD SVKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGQGT
LVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGV
HTFPAVLQSSGLYSLSSVTVPSSSLGTQTYICNVNHKPSNTKVDKRV

(配列番号46)

[図49]

C3E-7093-LC

NFMLTQPHSVSESPGKTVTISCKRNTGNIGSNYVNWYQQHEGSSPTTIIYRNDKRP
DGVSDRFSGSIDRSSKSASLTISNLKTEDEADYFCQSYSSGFIFGGGTKLTVLGQP
KAAPSVTLFPSSSEELQANKATLVCLISDFYPGAVTVAWKADSSPVKAGVETTPS
KQSNNKYAASSYLSLTPEQWKSHRSYSCQVTHEGSTVEKTVAPTECS

(配列番号47)

[図50]

C3E-7098

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKGLEWVASITSSGG
RIYYPDSVKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGCGT
LVTVSSGGGGSGGGSGGGGSNFMLTQPHSVSESPGKTVTISCKRNTGNIGSNYVN
WYQQHEGSCPTTIIYRNDKRPDGVSDRFGSIDRSSKSASLTISNLKTEDEADYFC
QSYSSGFIFGGGTKLTVL

(配列番号48)

[図51]

C3E-7099

EVQLVESGGGLVQPGGSLRLSCAASGVTFNYYGMSWIRQAPGKCLEWVASITSSGG
RIYYPDSVKGRFTISRENTQKTLYLQMNSLRAEDTAVYYCTLDGRDGVVAYWGQGT
LVTVSSGGGGSGGGSGGGGSNFMLTQPHSVSESPGKTVTISCKRNTGNIGSNYVN
WYQQHEGSSPTTIIYRNDKRPDGVSDRFGSIDRSSKSASLTISNLKTEDEADYFC
QSYSSGFIFGCGTKLTVL

(配列番号49)