

Sequence listing (003).TXT

Sequence Listing

<110> Sichuan Baili Pharmaceutical Co. Ltd

<120> Screening of fixed-point coupling sites of cysteine-modified antibody-toxin conjugates (TDC)

<160> 38

<210> 1

<211> 348

<212> DNA

<213> 2A1 heavy chain variable region (VH) DNA sequence

<400> 1

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acctgcactg tcactggcta ctcaatcacc agtgattttg cctggaactg gattcggcag	120
tttccaggaa acaagctgga gtggatgggc tacataagtt atagtggtaa cactaggtac	180
aacccatctc tcaaaagtcg aatctctatc actcgcgaca catccaagaa ccaattcttc	240
ctgcagttga actctgtgac tattgaggac acagccacat attactgtgt aacggcggga	300
cgcgggtttc cttattgggg ccaagggact ctggtcactg tctctgca	348

<210> 2

<211> 125

<212> PRT

<213> 2A1 heavy chain variable region (VH) amino acid sequence

<400> 2

DVQLQESGPS LVKPSQSLSL TCTVTGYSIT SDFAWNIRQ FPGNKLEWMG YISYSGNTRY	60
NPSLKCDRCD RSRISITRDT SKNQFFLQLN SVTIEDTATY YCVTAGRGFP YWGQGLVTV	120
SACDR	125

<210> 6

<211> 324

<212> DNA

<213> 2A1 light chain variable region (VL) DNA sequence

<400> 1

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atcacttgcc attcaagtca ggacattaac agtaatatag ggtgggttgca gcagagacca	120
gggaaatcat ttaagggcct gatctatcat ggaaccaact tggacgatga agttccatca	180
aggttcagtg gcagtggatc tggagccgat tattctctca ccatcagcag cctggaatct	240

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gaagattttg cagactatta ctgtgtacag tatgctcagt ttccgtggac gttcgggtgga	300
ggcaccaagc tggaaatcaa acgt	324

<210> 7

<211> 117

<212> PRT

<213> 2A1 light chain variable region (VL) amino acid sequence

<400> 2

DILMTQSPSS MSVSLGDTV ITCHSSQDIN SNIGWLQGRP GKSFKGLIYH GTNLDDEVPS	60
RFSGSCDRCD RSGADYSLT ISSLESEDFA DYYCVQYQF PWTFGGGTKL EIKRCR	117

<210> 11

<211> 990

<212> DNA

<213> 2A1 heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	60
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	120
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	180
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	240
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagag agttgagccc	300
aaatcttgtg acaaaaactca cacatgcca ccgtgcccag cacctgaact cctgggggga	360
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	420
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	480
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac	540
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gagtacaagt gcaagggtct caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	660
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc ccgggatgag	720
ctgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	780
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	840
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	900
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	960

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cagaagagcc tctccctgtc tccgggtaaa 990

<210> 12

<211> 330

<212> PRT

<213> 2A1 heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPELLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWESNGQP	ENNYKTPPV	LDSDGSFFLY	SKLTVDKSRW	300
QQGNVFSCSV	MHEALHNHYT	QKSLSLSPGK				330

<210> 13

<211> 321

<212> DNA

<213> 2A1 light chain constant region (CL) DNA sequence

<400> 1

acggtggctg	caccatctgt	cttcatcttc	ccgccatctg	atgagcagtt	gaaatctgga	60
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aaggtggata	acgccctcca	atcgggtaac	tcccaggaga	gtgtcacaga	gcaggacagc	180
aaggacagca	cctacagcct	cagcagcacc	ctgacgctga	gcaaagcaga	ctacgagaaa	240
cacaaagtct	acgcctgcga	agtcacccat	cagggcctga	gctcgcccgt	cacaaagagc	300
ttcaacaggg	gagagtgtta	g				321

<210> 14

<211> 106

<212> PRT

<213> 2A1 light chain constant region (CL) amino acid sequence

<400> 2

TVAAPSVFIF	PPSDEQLKSG	TASVCLLNN	FYPREAKVQW	KVDNALQSGN	SQESVTEQDS	60
KDSTYLSST	LTLSKADYEK	HKVYACEVTH	QGLSSPVTKS	FNRGEC		106

<210> 15

<211> 336

<212> DNA

<213> 2A1-LC-Cys110ins light chain constant region (CL) DNA sequence

<400> 1

gaaatcaaac	gtacgtgtgt	ggctgcacca	tctgtcttca	tcttcccgcc	atctgatgag	60
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cagttgaaat	ctggaactgc	ctctgttgtg	tgctgtctga	ataacttcta	tcccagagag	120
gccaaagtac	agtggaaggt	ggataacgcc	ctccaatcgg	gtaactcca	ggagagtgtc	180
acagagcagg	acagcaagga	cagcacctac	agcctcagca	gcaccctgac	gctgagcaaa	240
gcagactacg	agaaacacaa	agtctacgcc	tgcaagtca	cccatcaggg	cctgagctcg	300
cccgtcacia	agagcttcaa	caggggagag	tgttag			336

<210> 16

<211> 111

<212> PRT

<213> 2A1-LC-Cys110ins light chain constant region (CL) amino acid sequence

<400> 2

EIKRTCVAAP	SVFIFPPSDE	QLKSGTASV	CLLNNFYPRE	AKVQWKVDNA	LQSGNSQESV	60
TEQDSKDSTY	SLSSTLTLSK	ADYEKHKVYA	CEVTHQGLSS	PVTKSFNRGE	C	111

<210> 17

<211> 336

<212> DNA

<213> 2A1-LC-Cys111ins light chain constant region (CL) DNA sequence

<400> 1

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cagttgaaat	ctggaactgc	ctctgttgtg	tgctgtctga	ataacttcta	tcccagagag	120
gccaaagtac	agtggaaggt	ggataacgcc	ctccaatcgg	gtaactcca	ggagagtgtc	180
acagagcagg	acagcaagga	cagcacctac	agcctcagca	gcaccctgac	gctgagcaaa	240
gcagactacg	agaaacacaa	agtctacgcc	tgcaagtca	cccatcaggg	cctgagctcg	300
cccgtcacia	agagcttcaa	caggggagag	tgttag			336

<210> 18

<211> 111

<212> PRT

<213> 2A1-LC-Cys111ins light chain constant region (CL) amino acid sequence

<400> 2

EIKRTVCAAP	SVFIFPPSDE	QLKSGTASV	CLLNNFYPRE	AKVQWKVDNA	LQSGNSQESV	60
TEQDSKDSTY	SLSSTLTLSK	ADYEKHKVYA	CEVTHQGLSS	PVTKSFNRGE	C	111

<210> 19

<211> 336

<212> DNA

<213> 2A1-LC-Cys142ins light chain constant region (CL) DNA sequence

<400> 1

gaaatcaaac	gtacggtggc	tgccaccatct	gtcttcatct	tcccgccatc	tgatgagcag	60
ttgaaatctg	gaactgcctc	tggtgtgtgc	ctgctgaata	acttctatcc	ctgtagagag	120

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gccaaagtac	agtggaaggt	ggataacgcc	ctccaatcgg	gtaactccca	ggagagtgtc	180
acagagcagg	acagcaagga	cagcacctac	agcctcagca	gcaccctgac	gctgagcaaa	240
gcagactacg	agaaacacaa	agtctacgcc	tgcgaagtca	cccatcaggg	cctgagctcg	300
cccgtcacaa	agagcttcaa	caggggagag	tgttag			336

<210> 20

<211> 111

<212> PRT

<213> 2A1-LC-Cys142ins light chain constant region (CL) amino acid sequence

<400> 2

EIKRTVAAPS	VFIFPPSDEQ	LKSGTASVVC	LLNNFYPCRE	AKVQWKVDNA	LQSGNSQESV	60
TEQDSKDSTY	SLSSTLTLSK	ADYEKHKVYA	CEVTHQGLSS	PVTKSFNRGE	C	111

<210> 21

<211> 993

<212> DNA

<213> 2A1-HC-Cys254ins heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggg	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcattgatctc	ccggaccctt	420
tgtgaggtca	catgcgtggt	ggtggacgtg	agccacgaag	accctgaggt	caagttcaac	480
tggtacgtgg	acggcgtgga	ggtgcataat	gccaaagaaa	agccgcggga	ggagcagtac	540
aacagcacgt	accgtgtggt	cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	600
aaggagtaca	agtgaaggt	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	660
tccaaagcca	aagggcagcc	ccgagaacca	caggtgtaca	ccctgcccc	atcccgggat	720
gagctgacca	agaaccaggt	cagcctgacc	tgcctggtca	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcttc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 22

<211> 330

<212> PRT

<213> 2A1-HC-Cys254ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	CEVTCVVVDV	SHEDPEVKFN	WYVDGVEVHN	AKTKPREEQY	180

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NSTYRVVSVL	TVLHQDWLNG	KEYKCKVSNK	ALPAPIEKTI	SKAKGQPREP	QVYTLPPSRD	240
ELTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 23

<211> 993

<212> DNA

<213> 2A1-HC-Cys255ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtc	tcctcttccc	cccaaaaccc	aaggacaccc	tcattgatctc	ccggaccctt	420
gagtgtgtca	catgcgtggg	ggtggacgtg	agccacgaag	accctgaggt	caagttcaac	480
tggtagctgg	acggcgtgga	ggtgcataat	gccaaagaaa	agccgcggga	ggagcagtag	540
aacagcacgt	accgtgtggg	cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	600
aaggagtaca	agtgcgaagg	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	660
tccaaagcca	aagggcagcc	ccgagaacca	caggtgtaca	ccctgcccc	atcccgggat	720
gagctgacca	agaaccaggt	cagcctgacc	tgcctgggtc	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 24

<211> 330

<212> PRT

<213> 2A1-HC-Cys255ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVPE	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	ECVTCVVVDV	SHEDPEVKFN	WYVDGVEVHN	AKTKPREEQY	180
NSTYRVVSVL	TVLHQDWLNG	KEYKCKVSNK	ALPAPIEKTI	SKAKGQPREP	QVYTLPPSRD	240
ELTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 25

<211> 993

<212> DNA

<213> 2A1-HC-Cys258ins heavy chain constant region (CH) DNA sequence

<400> 1

Sequence listing (003).TXT

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	420
gaggtcacat	gctgtgtggt	ggtggacgtg	agccacgaag	accctgaggt	caagttcaac	480
tggtacgtgg	acggcgtgga	ggtgcataat	gccaaagaaa	agccgcggga	ggagcagtac	540
aacagcacgt	accgtgtggt	cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	600
aaggagtaca	agtgaaggt	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	660
tccaaagcca	aagggcagcc	ccgagaacca	caggtgtaca	ccctgcccc	atcccgggat	720
gagctgacca	agaaccaggt	cagcctgacc	tgcttgggtc	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcttc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 26

<211> 330

<212> PRT

<213> 2A1-HC-Cys258ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCCVVVDV	SHEDPEVKFN	WYVDGVEVHN	AKTKPREEQY	180
NSTYRVVSVL	TVLHQDWLNG	KEYKCKVSNK	ALPAPIEKTI	SKAKGQPREP	QVYTLPPSRD	240
ELTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSDGSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 27

<211> 993

<212> DNA

<213> 2A1-HC-Cys259ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	420
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tggtacgtgg	acggcgtgga	ggtgcataat	gccaaagaaa	agccgcggga	ggagcagtac	540
aacagcacgt	accgtgtggt	cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	600
aaggagtaca	agtgaaggt	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	660

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tccaaagcca	aagggcagcc	ccgagaacca	caggtgtaca	ccctgcccc	atcccgggat	720
gagctgacca	agaaccaggt	cagcctgacc	tgcttggtca	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 28

<211> 330

<212> PRT

<213> 2A1-HC-Cys259ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVCVVDV	SHEDPEVKFN	WYVDGVEVHN	AKTKPREEQY	180
NSTYRVVSVL	TVLHQDWLNG	KEYKCKVSNK	ALPAPIEKT	SKAKGQPREP	QVYTLPPSRD	240
ELTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFS	CSVMHEALHNHY	TQKSLSLSPG				330

<210> 29

<211> 993

<212> DNA

<213> 2A1-HC-Cys354ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcgctg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
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gaggtcacat	gcgtgggtgtg	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgggagga	gcagtacaac	540
agcacgtacc	gtgtgggtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	600
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
tgtctgacca	agaaccaggt	cagcctgacc	tgcttggtca	aaggcttcta	tcccagcgac	780
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gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 30

<211> 330

<212> PRT

<213> 2A1-HC-Cys354ins heavy chain constant region (CH) amino acid sequence

Sequence listing (003).TXT

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
CLTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 31

<211> 993

<212> DNA

<213> 2A1-HC-Cys355ins heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcattgatctc	ccggaccctt	420
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtgggaggt	gcataatgcc	aagacaaaagc	cgcgggagga	gcagtacaac	540
agcacgtacc	gtgtgggtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	600
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aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcctccatc	ccgggatgag	720
ctgtgtacca	agaaccaggt	cagcctgacc	tgcctgggtca	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcttc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 32

<211> 330

<212> PRT

<213> 2A1-HC-Cys355ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LCTKNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 33

<211> 993

Sequence listing (003).TXT

<212> DNA

<213> 2A1-HC-Cys357ins heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	420
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgggagga	gcagtacaac	540
agcacgtacc	gtgtgggtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	600
gagtacaagt	gcaaggctct	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
ctgaccaagt	gtaaccaggt	cagcctgacc	tgcctgggtca	aaggcttcta	tcccagcgac	780
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcttc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 34

<211> 330

<212> PRT

<213> 2A1-HC-Cys357ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKCNQVSLT	CLVKGFYPSD	IAVEWESNGQ	PENNYKTPPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 35

<211> 993

<212> DNA

<213> 2A1-HC-Cys378ins heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	420
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480

Sequence listing (003).TXT

tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgaggagga	gcagtacaac	540
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gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	780
gccgtggagt	ggtgtgagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 36

<211> 330

<212> PRT

<213> 2A1-HC-Cys378ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWCESNGQ	PENNYKTPP	VLDSDGSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 37

<211> 993

<212> DNA

<213> 2A1-HC-Cys379ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcggtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc	300
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	420
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agcacgtacc	gtgtgggtcag	cgctctcacc	gtcctgcacc	aggactggct	gaatggcaag	600
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	780
gccgtggagt	gggagtgtag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 38

<211> 330

Sequence listing (003).TXT

<212> PRT

<213> 2A1-HC-Cys379ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHNKPS	NTKVDKRVPEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWECSNGQ	PENNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 39

<211> 993

<212> DNA

<213> 2A1-HC-Cys386ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggtgttcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	240
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aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaatt	cctgggggga	360
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gaggtcacat	gcgtgggtgg	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgcgaggagga	gcagtacaac	540
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gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	660
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggatgag	720
ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	780
gccgtggagt	gggagagcaa	tgggcagccg	gagaactgta	actacaagac	cacgcctccc	840
gtgctggact	ccgacggctc	cttcttcttc	tatagcaagc	tcaccgtgga	caagagcagg	900
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 40

<211> 330

<212> PRT

<213> 2A1-HC-Cys386ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHNKPS	NTKVDKRVPEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWESNGQP	ENCNYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

Sequence listing (003).TXT

<210> 41

<211> 993

<212> DNA

<213> 2A1-HC-Cys387ins heavy chain constant region (CH) DNA sequence

<400> 1

gctagcacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	60
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	180
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tggcagcagg	ggaacgtctt	ctcatgtctc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 42

<211> 330

<212> PRT

<213> 2A1-HC-Cys387ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWESNGQP	ENNCYKTPP	VLDSGDSFFL	YSKLTVDKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330

<210> 43

<211> 993

<212> DNA

<213> 2A1-HC-Cys410ins heavy chain constant region (CH) DNA sequence

<400> 1

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ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	120
tggaaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	180
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	cacccagacc	240

Sequence listing (003).TXT

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ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcattgatctc	ccggaccctt	420
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	480
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ctgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	780
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tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	960
acgcagaaga	gcctctccct	gtctccgggt	taa			993

<210> 44

<211> 330

<212> PRT

<213> 2A1-HC-Cys410ins heavy chain constant region (CH) amino acid sequence

<400> 2

ASTKGPSVFP	LAPSSKSTSG	GTAALGCLVK	DYFPEPVTVS	WNSGALTSGV	HTFPAVLQSS	60
GLYSLSSVVT	VPSSSLGTQT	YICNVNHKPS	NTKVDKRVEP	KSCDKTHTCP	PCPAPEFLGG	120
PSVFLFPPKP	KDTLMISRTP	EVTCVVVDVS	HEDPEVKFNW	YVDGVEVHNA	KTKPREEQYN	180
STYRVVSVLT	VLHQDWLNGK	EYKCKVSNKA	LPAPIEKTIS	KAKGQPREPQ	VYTLPPSRDE	240
LTKNQVSLTC	LVKGFYPSDI	AVEWESNGQP	ENNYKTPPV	LDSDGSFFLY	SKLTVCKSR	300
WQQGNVFSCS	VMHEALHNHY	TQKSLSLSPG				330