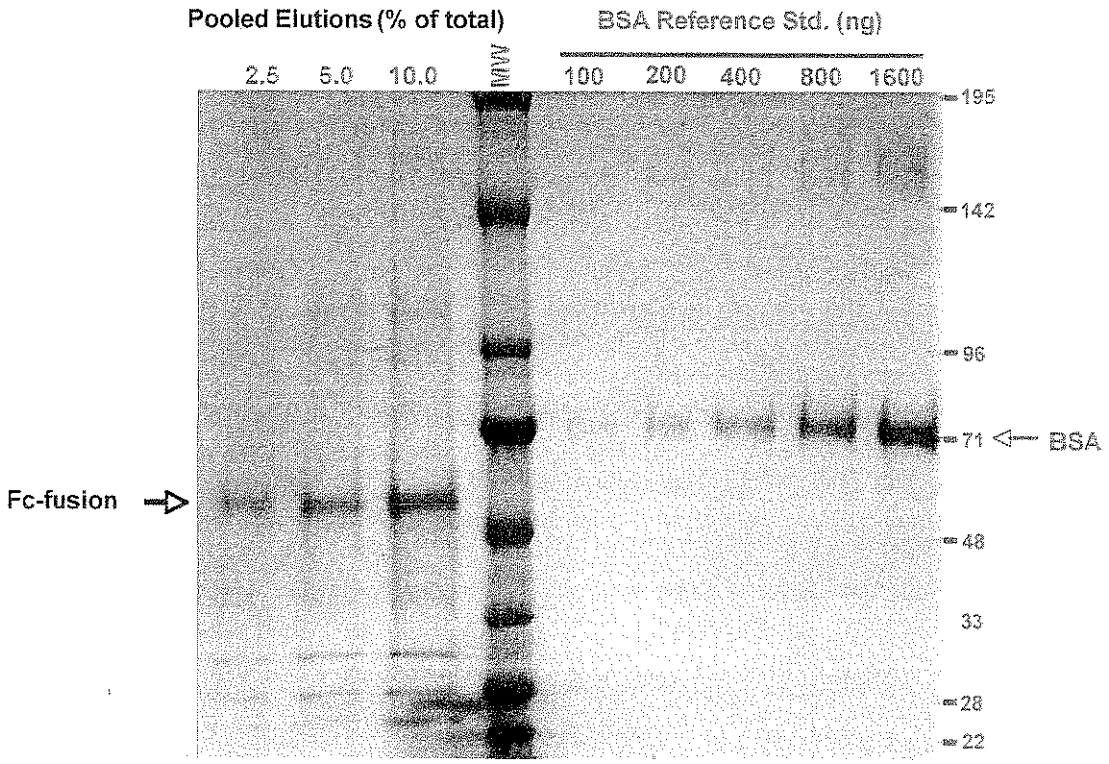

Pooled Elutions (% of total)
BSA Reference Std. (ng)
2.5
5.0
10.0
MW
100
200
400
800
1600
195
142
96
71
BSA
48
33
28
22
Fc-fusion

Figure 1

A.

ATGGTTCCACAAAAACCAAAAGTTAGTCTTAATCCACCTTGGAATCGTAT
TTTTAAAGGTGAAAATGTTACACTTACTTGTAATGGTAATAATTTTTTTG
AAGTATCTTCTACAAAATGGTTTCACAATGGTTCACTTTCAGAAGAAACT
AATTCATCACTTAATATTGTTAATGCAAAATTTGAAGATTCAGGTGAATA
TAAATGTCAACATCAACAAGTTAATGAATCTGAACCTGTTTATCTTGAAG
TTTTTAGTGATTGGTTACTTTTACAAGCATCAGCAGAAGTTGTTATGGAA
GGACAACCACTTTTTCTTCGTTGTCATGGTTGGAGAAATTGGGATGTATA
TAAAGTTATTTATTATAAAGATGGTGAAGCTTTAAAATATTGGTATGAAA
ATCATAATATTTCAATTACAAATGCTACTGTTGAAGATAGTGGTACTTAT
TATTGTACAGGTAAAGTTTGGCAACTTGATTATGAATCAGAACCTCTTAA
TATTACTGTTATTAAAGAACCAAAATCTTGTGATAAAACACACACTTGTC
CTCCATGTCCTGCTCCTGAACTTTTAGGAGGACCATCAGTATTTCTTTTC
CCACCAAAACCTAAAGATACACTTATGATTTCACGTACACCTGAAGTTAC
TTGTGTAGTAGTAGATGTTTCACATGAAGATCCAGAAGTTAAATTTAATT
GGTATGTTGATGGAGTAGAAGTTCACAATGCAAAAACTAAACCACGTGAA
GAACAATATAATTCTACATATCGTGTAGTTTCAGTTCTTACTGTTCTTCA
CCAAGATTGGCTTAATGGTAAAGAATATAAATGTAAAGTATCAAATAAAG
CACTTCCTGCACCAATTGAAAAAACTATTTCAAAAGCAAAAGGACAACCT
CGTGAACCACAAGTTTATACACTTCCACCATCTCGTGATGAACTTACAAA
AAATCAAGTATCACTTACTTGCCTTGTAAAAGGTTTCTATCCATCAGATA
TTGCTGTTGAATGGGAATCAAATGGTCAACCAGAAAATAATTATAAAACA
ACTCCTCCAGTTTTAGATTCAGATGGATCATTCTTCCTTTATTCAAAACT
TACAGTAGATAAATCTCGTTGGCAACAAGGAAATGTTTTCTCATGTTCTG
TAATGCACGAAGCTCTTCACAATCACTATACACAAAAATCTCTTTCTCTT
TCACCTGGTAAAGACTATAAAGATCACGATGGTGATTATAAAGAACACGA
TATTGATTAcAAAGATGATGATGATAAATAA

B.

MVPQKPKVSLNPPWNRIFKGENVTLTCNGNNFFEVSSTKWFHNGSLSEET
NSSLNIVNAKFEDSGEYKCQHQQVNESEPVYLEVFSDWLLLQASAEVVME
GQPLFLRCHGWRNWDVYKVIYYKDGEALKYWYENHNISITNATVEDSGTY
YCTGKVWQLDYESEPLNITVIKEPKSCDKTHTCPPCPAPELLGGPSVFLF
PPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPRE
EQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQP
REPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKT
TPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSL
SPGK*DYKDHDGDYKEHDIDYKDDDDK*

Figure 2

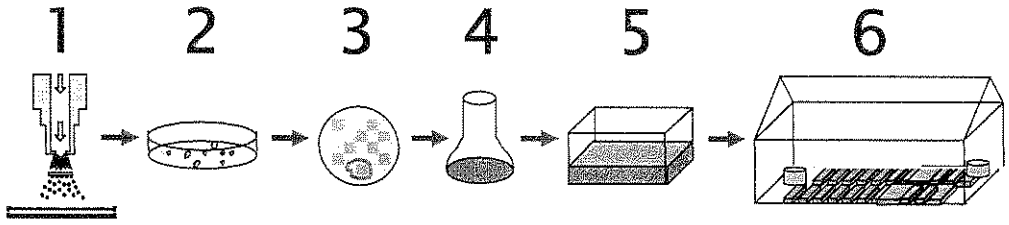


Figure 3

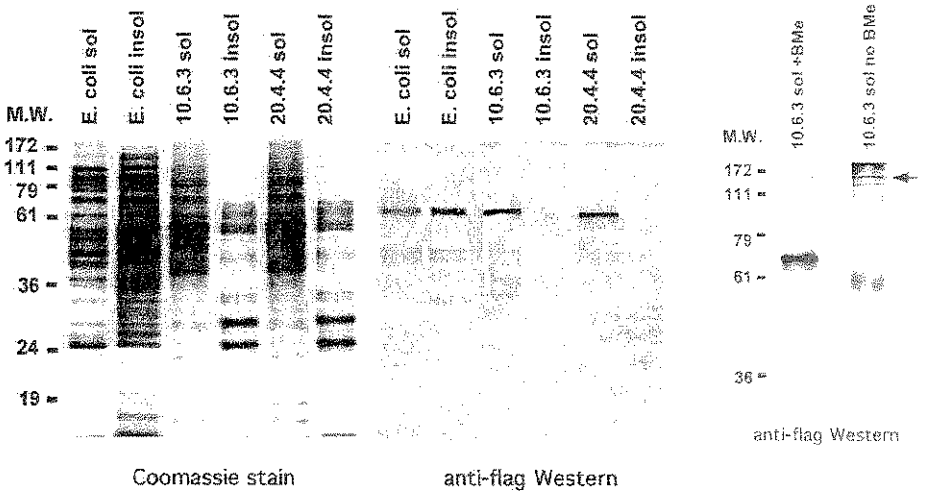
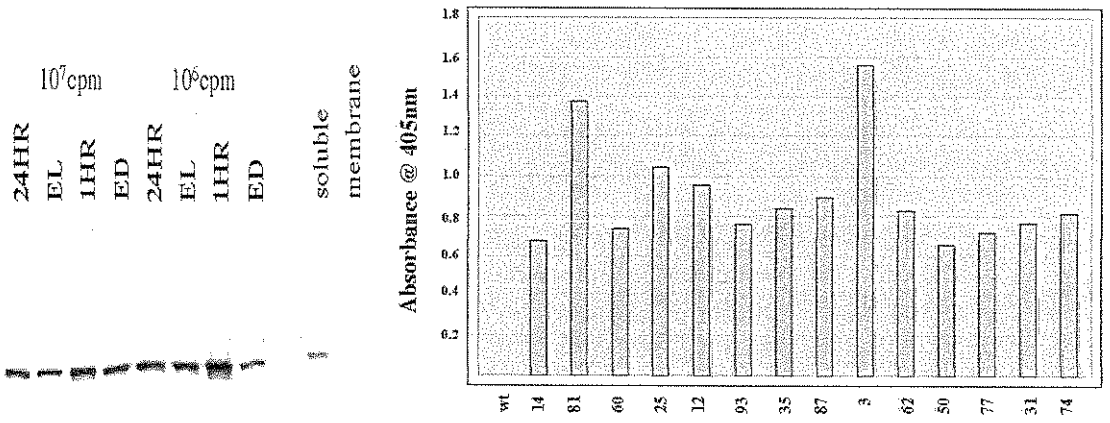

M.W.
172
111
79
61
36
24
19
E. coli sol
E. coli insol
10.6.3 sol
10.6.3 insol
20.4.4 sol
20.4.4 insol
Coomassie stain
anti-flag Western
M.W.
172
111
79
61
36
10.6.3 sol +BMe
10.6.3 sol no BMe
anti-flag Western

Figure 4



C. reinhardtii homoplasmic isolates expressing HSV8 scfv

Figure 5

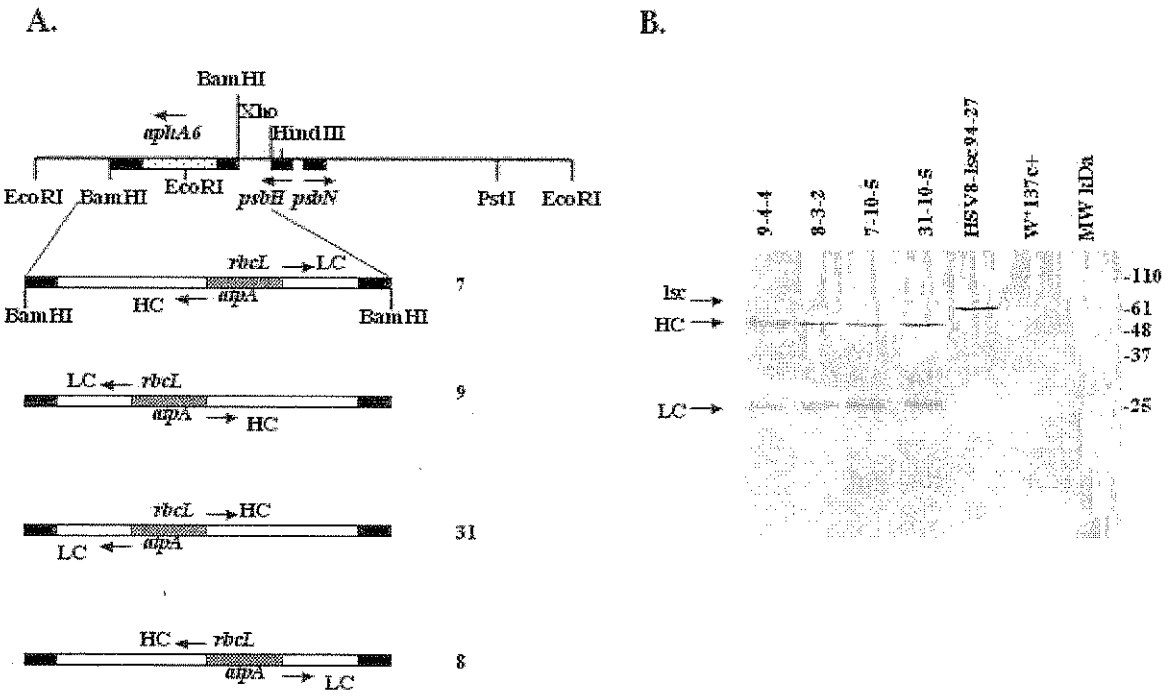

A.
BamHI
XhoI
aphA6
HindIII
EcoRI
BamHI
EcoRI
psbH
psbN
PstI
EcoRI
rbcL
LC
BamHI
HC
atpA
BamHI
7
LC
rbcL
atpA
HC
9
rbcL
HC
LC
atpA
31
HC
rbcL
atpA
LC
8
B.
9-4-4
8-3-2
7-10-5
31-10-5
HSV8-lsc94-27
W*137c+
MW kDa
lsc
HC
LC
-110
-61
-48
-37
-25

Figure 6

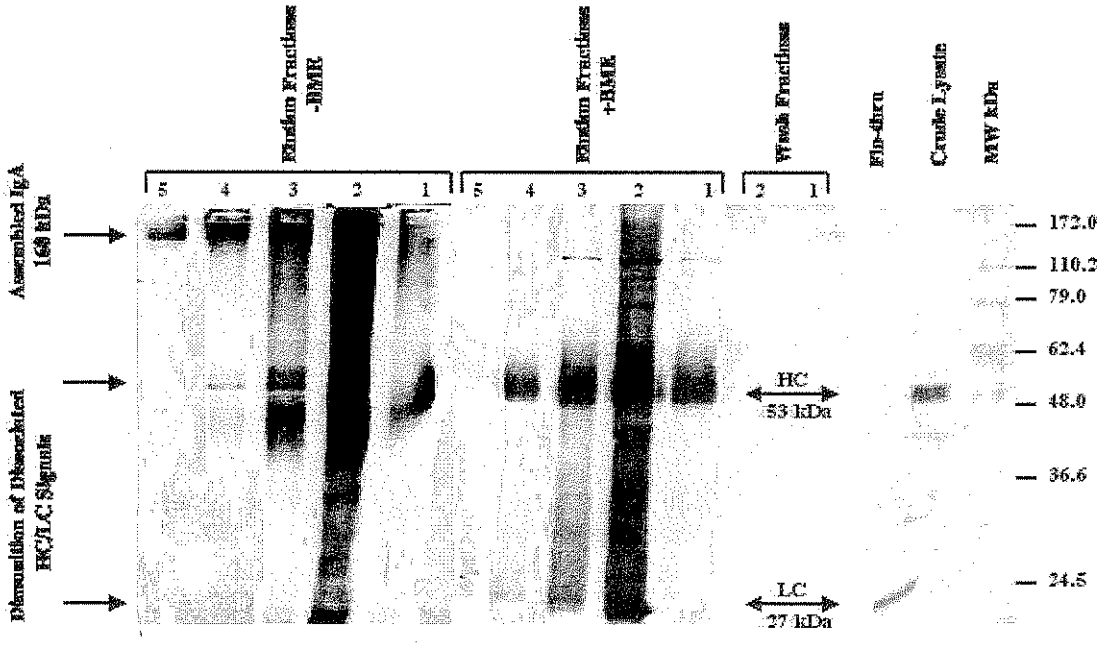

Rhodium Fractions -BMK
Rhodium Fractions +BMK
Wash Fractions
Flo-thru
Crude Lysate
MW kDa
5 4 3 2 1
5 4 3 2 1
2 1
Assembled IgA 160 kDa
Dissociation of Dissociated HC/LC Signals
HC 53 kDa
LC 27 kDa
172.0
110.2
79.0
62.4
48.0
36.6
24.5

Figure 7

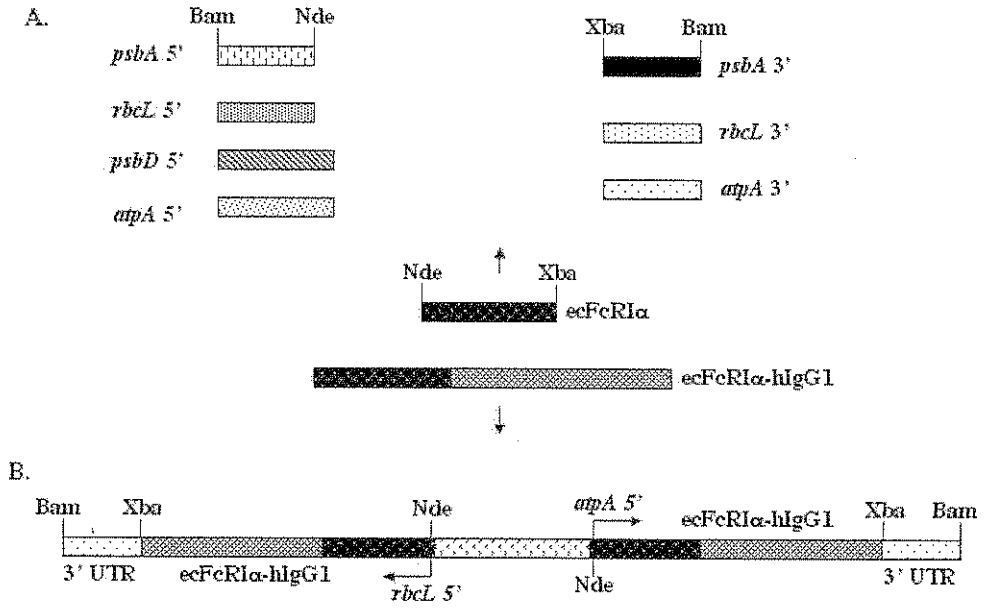

A.
Bam
Nde
psbA 5'
rbcL 5'
psbD 5'
atpA 5'
Xba
Bam
psbA 3'
rbcL 3'
atpA 3'
Nde
Xba
ecFcRIα
ecFcRIα-hIgG1
B.
Bam
Xba
Nde
atpA 5'
ecFcRIα-hIgG1
Xba
Bam
3' UTR
ecFcRIα-hIgG1
rbcL 5'
Nde
3' UTR

Figure 8

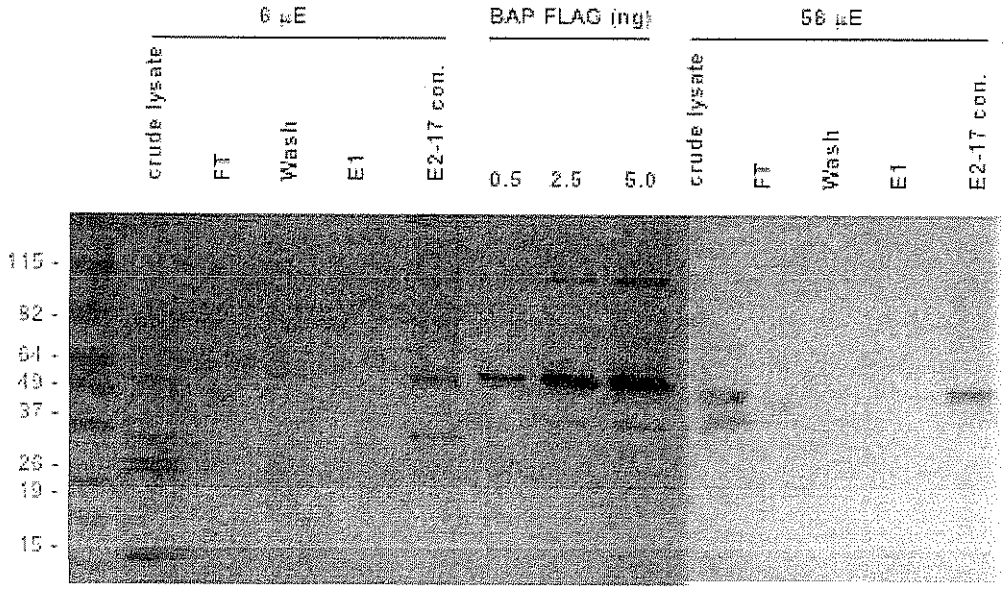

6 μE
BAP FLAG (ng)
56 μE
crude lysate
FT
Wash
E1
E2-17 con.
0.5
2.5
5.0
crude lysate
FT
Wash
E1
E2-17 con.
115 -
82 -
64 -
49 -
37 -
26 -
19 -
15 -

Figure 9

A. murine light chain gene

ATGGATTACAAAGACCATGATGGTGACTACAAAGATCATGACATTGATTA
TAAAGATGATGATGATAAAGATGTTGTTATGACACAAACACCATTATCAT
TACCAGTTTCATTAGGTGATCAAGCATCAATTTCATGTCGTTCATCACAA
TCATTAGTTCATTCAAATGGTAATACATATTTACATTGGTATTTACAAAA
ACCAGGTCAATCACCAAAATTATTAATTTATAAAGTTTCAAATCGTTTTT
CTGGTGTACCAGATCGTTTTTCTGGTTCTGGTTCTGGTACAGATTTTACA
TTAAAAATTTCTCGTGTAGAAGCTGAAGATTTAGGTGTATATTTTTGTTC
TCAATCTACACATGTACCTTGGACTTTAGGTGGTGGTACCAAATTAGAAA
TTAAACGTGCTGACGCTGCTCCTACTGTATCTATTTTTCCTCCTAGTTCA
GAACAATTAACAAGTGGTGGTGCTAGTGTTGTTTGTTTTTTAAATAATTT
CTATCCAAAAGATATTAATGTTAAATGGAAAATTGATGGTTCAGAACGTC
AAAATGGTGTTTTAAATTCATGGACAGATCAAGATTCAAAAGATTCAACA
TACTCAATGTCATCAACATTAACATTAACTAAAGATGAATACGAACGTCA
TAATTCATACACTTGTGAAGCAACTCATAAAACTTCAACATCACCAATTG
TTAAATCATTTAATCGTAATGAATGTTAA

B. murine kappa light chain protein

MDYKDHDGDYKDHDIDYKDDDDKDVVMTQTPLSLPVSLGDQASISCRSSQS
LVHSNGNTYLHWYLQKPGQSPKLLIYKVSNRFSGVPDRFSGSGSGTDFTL
KISRVEAEDLGVYFCSQSTHVPWTLGGGTKLEIKRADAAPTVSIFPPSSE
QLTSGGASVVCFLNNFYPKDINVKWKIDGSERQNGVLNSWTDQDSKDSTY
SMSSTLTLTKDEYERHNSYTCEATHKTSTSPIVKSFNRNEC

Figure 10

C. murine heavy chain gene

ATGGAAGTTAAATTAGTTGAATCAGGTGGTGGTTTAGTTAAACCAGGAGG
TTCATTAAAATTATCTTGTGCTGCTTCTGGTTTTACATTTTCTAGTTATG
CTATGTCATGGGTTCGTCAAACTCCTGAAAAACGTTTAGAATGGGTAGCA
TCAATTTCATCAGGTGGTTCAACTTATTATCCTGATTCTGTAAAAGGTCG
TTTCACTATTTTCCGTGATAATGCACGTAATATTTTATACTTACAAATGT
CTTCTTTACGTTCAGAAGATACAGCTATGTACTATTGTGTACGTGGTCAA
GACTATTGGGGTCAAGGTACATCAGTAACAGTATCATCAGCTAAAACAAC
ACCACCATCAGTTTATCCATTAGCTCCAGGTTCTGCTGCTCAAACTAATT
CTATGGTTACTTTAGGTTGTTTAGTTAAAGGTTATTTTCCTGAACCTGTA
ACTGTAACTTGGAATAGTGGTTCTTTATCTTCTGGTGTACATACTTTTCC
TGCTGTATTACAATCTGATTTATATACTTTATCTTCTTCAGTAACAGTAC
CATCATCAACATGGCCATCAGAAACAGTAACATGTAATGTAGCACATCCA
GCATCATCAACAAAAGTAGATAAAAAAATTGTTCCAAGAGATTGTGGTTG
TAAACCATGTATTTGTACAGTTCCAGAAGTTTCATCAGTTTTTATTTTCC
CACCAAAACCTAAAGATGTTTTAACAATTACATTAACACCTAAAGTTACA
TGTGTTGTAGTAGATATTTCAAAAGATGATCCTGAAGTTCAATTCTCATG
GTTTGTTGATGATGTTGAAGTTCACACAGCACAAACACAACCAAGAGAAG
AACAATTTAATTCAACATTTAGATCAGTTTCAGAATTACCAATTATGCAT
CAAGATTGGTTAAATGGTAAAGAATTTAAATGTAGAGTTAATTCAGCAGC
ATTCCCAGCACCAATTGAAAAAACAATTTCAAAAACAAAAGGAAGACCAA
AAGCTCCACAAGTTTATACAATTCCACCTCCAAAAGAACAAATGGCTAAA
GATAAAGTTTCATTAACATGTATGATTACAGATTTCTTCCCAGAAGATAT
TACAGTTGAATGGCAATGGAATGGTCAACCAGCTGAAAATTATAAAAATA
CTCAACCTATTATGGATACTGATGGTTCATATTTTGTTTATTCAAAATTA
AATGTTCAAAAATCTAATTGGGAAGCTGGTAATACTTTTACATGTTCTGT
ATTACATGAAGGTTTACACAATCATCATACAGAAAAAATTTTATCTCATT
CTCCAGGTAAAGACTATAAAGATCACGATGGTGATTATAAAGAACACGAT
ATTGATTACAAAGATGATGATGATAAATAA

D. murine heavy chain protein

MEVKLVESGGGLVKPGGSLKLSCAASGFTFSSYAMSWVRQTPEKRLEWVA
SISSGGSTYYPDSVKGRFTIFRDNARNILYLQMSSLRSEDTAMYYCVRGQ
DYWGQGTSVTVSSAKTTPPSVYPLAPGSAAQTNSMVTLGCLVKGYFPEPV
TVTWNSGSLSSGVHTFPAVLQSDLYTLSSSVTVPSSTWPSETVTCNVAHP
ASSTKVDKKIVPRDCGCKPCICTVPEVSSVFIFPPKPKDVLTITLTPKVT
CVVVDISKDDPEVQFSWFVDDVEVHTAQTQPREEQFNSTFRSVSELPIMH
QDWLNGKEFKCRVNSAAFPAPIEKTISKTKGRPKAPQVYTIPPPKEQMAK
DKVSLTCMITDFFPEDITVEWQWNGQPAENYKNTQPIMDTDGSYFVYSKL
NVQKSNWEAGNTFTCSVLHEGLHNHHTEKILSHSPGK***DYKDHDGDYKEHD***
IDYKDDDDK

Figure 10 continued

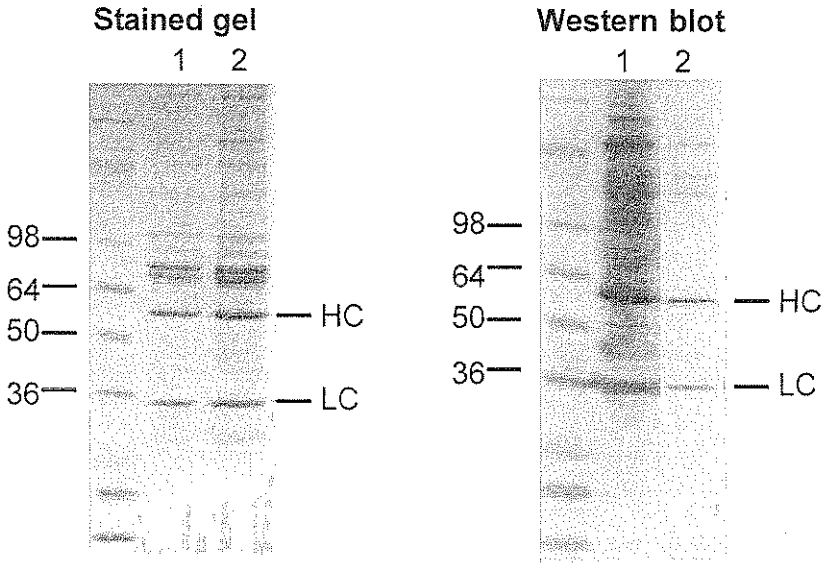


Figure 11

A. chimeric human kappa light chain gene

ATGGATTACAAAGACCATGATGGTGACTACAAAGATCATGACATTGATTA
TAAAGATGATGATGATAAAGATGTAGTAATGACACAAACACCATTATCAT
TACCAGTTTCATTAGGTGATCAAGCTTCAATTTCATGTCGTTCAAGTCAA
AGTTTAGTTCATAGTAATGGTAATACTTATTTACATTGGTATTTACAAAA
ACCAGGTCAATCTCCTAAATTATTAATTTATAAAGTTTCTAACCGTTTTT
CTGGTGTTCCTGACCGTTTTTCTGGATCTGGTTCTGGTACTGATTTCACT
TTAAAAATTTCACGTGTTGAAGCTGAAGATTTAGGAGTATACTTTTGTTC
ACAATCAACACACGTTCCTTGGACATTAGGTGGTGGTACAAAATTAGAAA
TTAAACGTACGGTTGCTGCTCCATCAGTTTTTATTTTTCCACCATCAGAT
GAACAATTAAAATCAGGTACTGCTTCAGTTGTTTGTTTATTAAATAATTT
TTATCCACGTGAAGCTAAAGTTCAATGGAAAGTTGATAATGCTTTACAAT
CAGGTAATTCACAAGAATCAGTTACTGAACAAGATTCAAAAGATTCAACT
TATTCATTATCATCAACTTTAACTTTATCAAAAGCTGATTATGAAAAACA
TAAAGTTTATGCTTGTGAAGTTACTCATCAAGGTTTATCATCACCAGTTA
CTAAATCATTTAATCGTGGTGAATGTTAATCTAGA

B. chimeric human kappa light chain protein

MDYKDHDGDYKDHDIDYKDDDDKDVVMTQTPLSLPVSLGDQASISCRSSQ
SLVHSNGNTYLHWYLQKPGQSPKLLIYKVSNRFSGVPDRFSGSGSGTDFT
LKISRVEAEDLGVYFCSQSTHVPWTLGGGTKLEIKRTVAAPSVFIFPPSD
EQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDST
YSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

Figure 12

C. chimeric human heavy chain gene

ATGGAAGTTAAATTAGTTGAATCAGGTGGTGGTTTAGTTAAACCAGGAGG
TTCATTAAAATTATCTTGTGCTGCTTCTGGTTTTACATTTTCTTCTTATG
CTATGTCATGGGTTCGTCAAACTCCTGAAAAACGTTTAGAATGGGTAGCA
TCAATTTCATCAGGTGGTTCAACTTATTATCCTGATTCTGTAAAAGGTCG
TTTCACTATTTTCCGTGATAATGCACGTAATATTTTATACTTACAAATGT
CTTCTTTACGTTCAGAAGATACAGCTATGTACTATTGTGTACGTGGTCAA
GACTATTGGGGTCAAGGTACATCAGTAACAGTATCAGCTAGCACAAAAGG
TCCATCTGTTTTCCCATTAGCACCATCATCAAAAAGTACATCTGGTGGTA
CAGCTGCATTAGGTTGTTTAGTTAAAGACTACTTCCCAGAACCTGTAACT
GTATCTTGGAACTCAGGTGCATTAACAAGTGGTGTACACACATTCCCTGC
TGTTTTACAATCATCAGGTTTATACTCATTAAGTAGTGTAGTAACAGTAC
CATCAAGTAGTTTAGGTACACAAACATACATCTGTAACGTAAATCACAAA
CCAAGTAACACAAAAGTAGACAAAAAAGTTGAACCAAAATCTTGTGATAA
AACACACACTTGTCCTCCATGTCCTGCTCCTGAATTATTAGGAGGACCAT
CAGTATTTTTATTCCCACCAAAACCTAAAGATACATTAATGATTTCACGT
ACACCTGAAGTTACTTGTGTAGTAGTAGATGTTTCACATGAAGATCCAGA
AGTTAAATTTAATTGGTATGTTGATGGAGTAGAAGTTCACAATGCAAAAA
CTAAACCACGTGAAGAACAATATAATTCTACATATCGTGTAGTTTCAGTT
TTAACTGTTTTACACCAAGATTGGTTAAATGGTAAAGAATATAAATGTAA
AGTATCAAATAAAGCATTACCTGCACCAATTGAAAAAACTATTTCAAAAG
CAAAAGGACAACCTCGTGAACCACAAGTTTATACATTACCACCATCTCGT
GATGAATTAACAAAAAATCAAGTATCATTAACTTGCTTAGTAAAAGGTTT
CTATCCATCAGATATTGCTGTTGAATGGGAATCAAATGGTCAACCAGAAA
ATAATTATAAAACAACTCCTCCAGTTTTAGATTCAGATGGATCATTCTTC
TTATATTCAAAATTAACAGTAGATAAATCTCGTTGGCAACAAGGAAATGT
TTTCTCATGTTCTGTAATGCACGAAGCTTTACACAATCACTATACACAAA
AATCTTTATCTTTATCACCTGGTAAAGACTATAAAGATCACGATGGTGAT
TATAAAGAACACGATATTGATTACAAAGATGATGATGATAAATAA

D. chimeric human heavy chain protein

MEVKLVESGGGLVKPGGSLKLSCAASGFTFSSYAMSWVRQTPEKRLEWVA
SISSGGSTYYPDSVKGRFTIFRDNARNILYLQMSSLRSEDTAMYYCVRGQ
DYWGQGTSVTVSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVT
VSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHK
PSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISR
TPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSV
LTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSR
DELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFF
LYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK***DYKDHDGD***
YKEHDIDYKDDDDK

Figure 12 continued

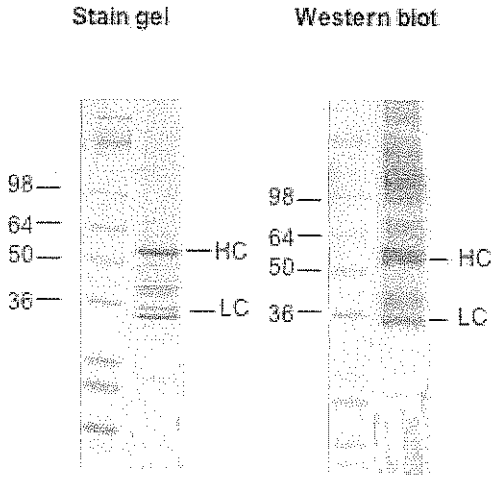


Figure 13