FIGURE 1

Primer C7mhHF (SEQ ID NO: 1)
TCCTCAGCCTCCACCAAGGGCC

FIGURE 2

Primer Rev Age Pri (SEQ ID NO: 2)
GGGCGCCTGAGTTCCACGAC

FIGURE 3
Primer C2aB7 rev (SEQ ID NO: 3)
GGCCCTTGGTGGAGGCTGAGGAAACTGTGAGAGTGGTGC

FIGURE 4
lacpri (SEQ ID NO: 4)
GCTCCCGGCTCGTATGTTGTGT

FIGURE 5
LeadVHpAX (SEQ ID NO: 5)
ATATGAAATATCTGCTGCCGACCG

FIGURE 6A Note: Figs. 6-15, leader sequences (AA) are underlined and constant regions are in bold.

chC2aB7-hG1
Heavy chain (introns in hG1) (SEQ ID NO. 7)

MGWSCIILFLVATATGVHSLEVQLQQSGPELVKPGASLKMSCKASGYSFT
DYIILWVKQNHGKSLEWIGHIDPYYGSSNYNLKFKGKATLTVDKSSSTAY
MQLNSLTSEDSAVYYCGRSKRDYFDYWGQGTTLTVSS**ASTKGPSVFPLA**
PSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSS
GLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHT
CPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEV
KFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKE
YKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLT
CLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDK
SRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIGURE 6B

(SEQ ID NO. 6) (genomic sequence hG1)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCTCGAG
GTCCAGCTGCAACAGTCTGGACCTGAGCTGGTGAAGCCTGGGGCTTCACTGAAGATGTCCTGC
AAGGCTTCTGGTTATTCATTCACTGACTACATCATACTCTGGGTGAAGCAGAACCATGGAAAG
AGCCTTGAGTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTGAAATTCA
AGGGCAAGGCCACATTGACTGTAGACAAATCTTCCAGCACAGCCTACATGCAGCTCAACAGT
CTGACATCTGAGGACTCTGCAGTCTATTACTGTGGAAGATCTAAGAGGGACTACTTTGACTAC
TGGGGCCAAGGCACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCC
CTGGCACCCTCCTCCAAGAGCACCTCTGGCGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACACC
TTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCA
GCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTG
GACAAGAGAGTTGGTGAGAGGCCAGCACAGGGAGGGAGGGTGTCTGCTGGAAGCCAGGCTC
AGCGCTCCTGCCTGGACGCATCCCGGCTATGCAGTCCCAGTCCAGGGCAGCAAGGCAGGCCC
CGTCTGCCTCTTCACCCGGAGGCCTCTGCCCGCCCCACTCATGCTCAGGGAGAGGGTCTTCTG
GCTTTTTCCCCAGGCTCTGGGCAGGCACAGGCTAGGTGCCCCTAACCCAGGCCCTGCACACAA
AGGGGCAGGTGCTGGGCTCAGACCTGCCAAGAGCCATATCCGGGAGGACCCTGCCCCTGACC
TAAGCCCACCCCAAAGGCCAAACTCTCCACTCCCTCAGCTCGGACACCTTCTCTCCTCCCAGA
TTCCAGTAACTCCCAATCTTCTCTCTGCAGAGCCCAAATCTTGTGACAAAACTCACACATGCCC
ACCGTGCCCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTCAAGGCGGGACAGGTGCCCTA
GAGTAGCCTGCATCCAGGGACAGGCCCCAGCCGGGTGCTGACACGTCCACCTCCATCTCTTCC
TCAGCACCTGAACTCCTGGGGGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACC
CTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCT
GAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCG
GGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACT
GGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
AAAACCATCTCCAAAGCCAAAGGTGGGACCCGTGGGGTGCGAGGGCCACATGGACAGAGGCC
GGCTCGGCCCACCCTCTGCCCTGAGAGTGACCGCTGTACCAACCTCTGTCCCTACAGGGCAGC
CCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTC
AGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAAT
GGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTC
CTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCC
GTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCCCCGGGTAAA
TGA

FIGURE 6C: A schematic representation of the heavy chain of antibody chC2aB7-hG1.

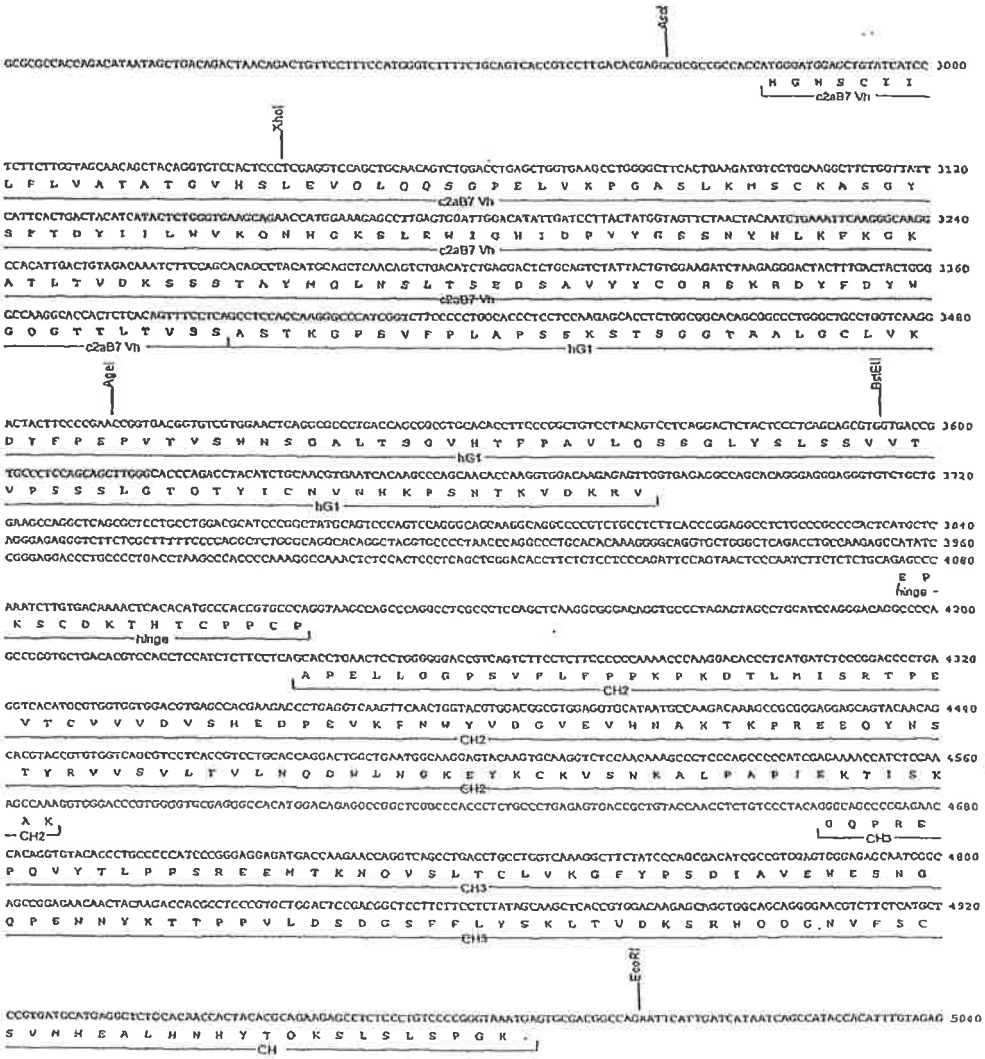


FIGURE 6D

Light Chain (human Ck) (SEQ ID NO. 24)

MGWSCIILFLVATATGVHSRDIQMTQSPSSMYASLGERVTITCKASQDINSYL
SWFQQKPGKSPKTLIYRANRLVDGVPSRFSGSGSGQDYSLTISSLEYEDMGIY
YCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNN
FYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYE
KHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 6E

(SEQ ID NO. 23)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGT
CCACTCTAGAGACATCCAGATGACACAGTCTCCATCTTCCATGTATGCATC
TCTAGGAGAGAGAGTCACTATCACTTGCAAGGCGAGTCAGGACATTAATA
GCTATTTAAGCTGGTTCCAGCAGAAACCAGGGAAATCTCCTAAGACCCTG
ATCTATCGTGCAAACAGATTGGTAGATGGGGTTCCATCAAGGTTCAGTGG
CAGTGGATCTGGGCAAGATTATTCTCTCACCATCAGCAGCCTGGAGTATG
AAGATATGGGAATTTATTATTGTCTACAGTATGATGAGTTTCCGTACACGT
TCGGAGGGGGGACCAAGCTGGAAATAAAACGGACTGTGGCTGCACCATC
TGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTC
TGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGT
GGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTCAC
AGAGCAGGACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCCTGACG
CTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTCA
CCCATCAGGGCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGA
GTGTTAA

FIGURE 6F: A schematic representation of the light chain of antibody chC2aB7-hG1.

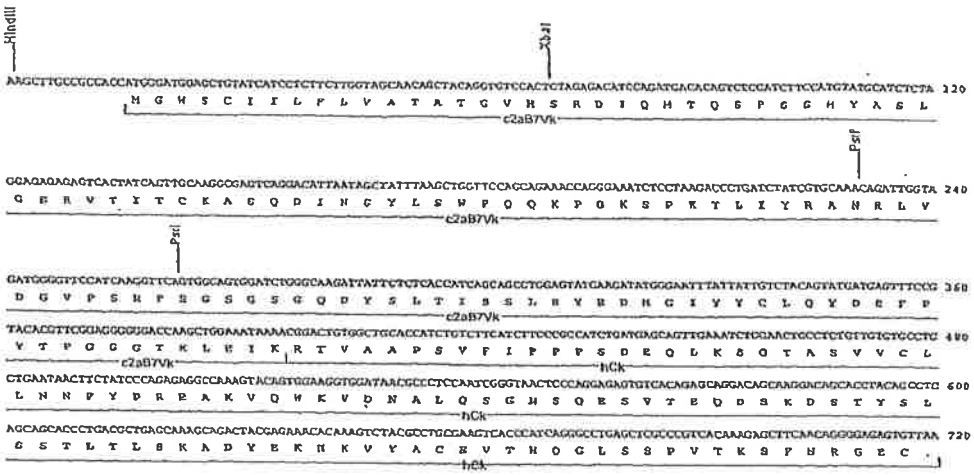


FIGURE 7A

hB7V4V1-hG1

Heavy chain (SEQ ID NO. 9)

MGWSWIFLFLLSVTAGVFSEVQLVESGPEVKKPGASVKVSCKASGYSFTD
YIILWIRQHSGKGLEWIGHIDPYYGSSNYNLKFKGRVTITADKSTRTTYME
LTSLTSEDTAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLAPSS
KSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCP
PCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK
CKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSR
WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIGURE 7B

(SEQ ID NO. 8) (cDNA hG1)

ATGGGATGGAGCTGGATCTTTCTCTTTCTCCTGTCAGTAACTGCAGGTG
TGTTCTCTGAGGTCCAGCTGGTGGAGTCCGGACCTGAGGTGAAGAAGC
CTGGGGCTTCAGTGAAGGTGTCCTGCAAGGCTTCTGGTTATTCATTCAC
TGACTACATCATACTCTGGATCAGGCAGCATAGCGGAAAGGGCCTTGA
GTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTG
AAATTCAAGGGCAGGGTCACAATCACTGCAGACAAATCTACCAGGAC
AACCTACATGGAGCTCACCAGTCTGACATCTGAGGACACTGCAGTCTA
TTACTGTGGAAGATCTAAGAGGGACTACTTTGACTACTGGGGCCAAGG
CACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTC
CCGCTAGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTG
GGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGG
AACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTA
CAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCC
AGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCC
AGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAA
AACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCTGGGGGGACC
GTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCC
CGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTG
TGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTA
CACCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAGCC
TGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGT
GGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCC
GTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG
GACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGAT
GCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTC
TCCGGGTAAATGA

FIGURE 7C: A schematic representation of the heavy chain of antibody hB7V4V1-hG1.

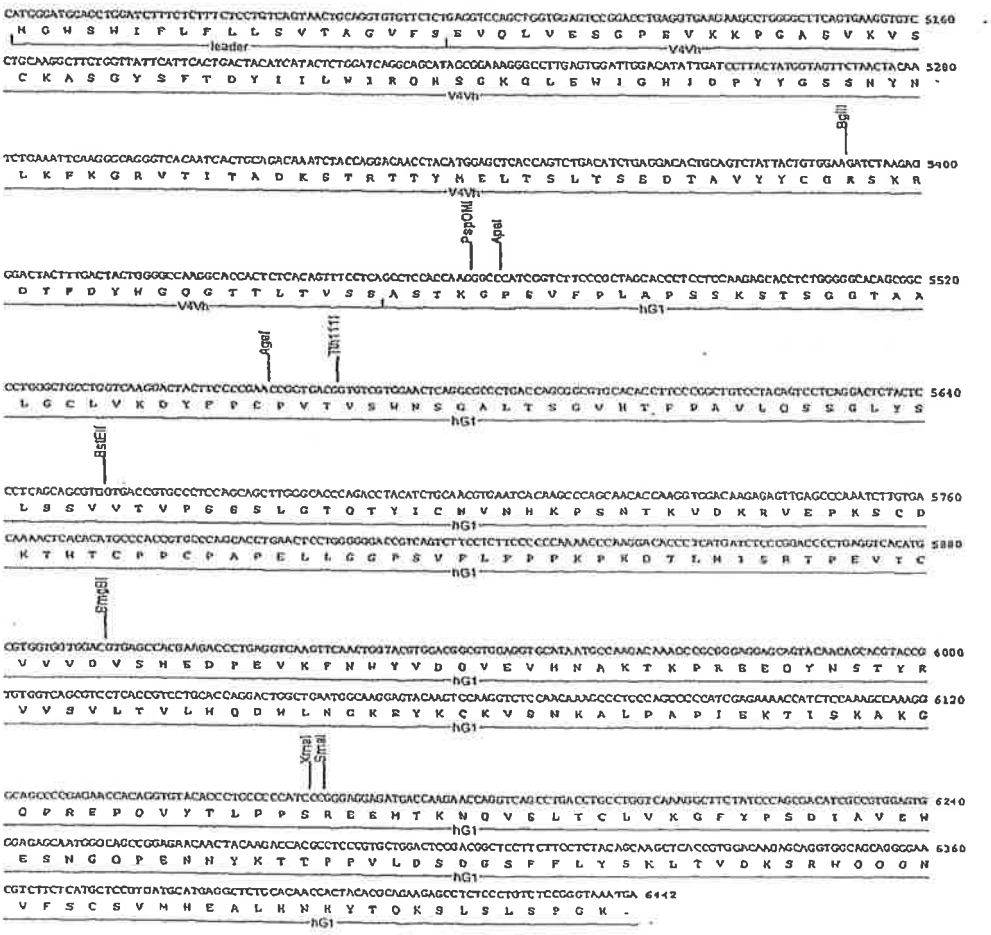


FIGURE 7D

Light chain (human Ck) (SEQ ID NO. 26)

MDMRVSAQLLGLLLLWLSGARCDIQMTQSPSSLSASIGDRVTITCKASQD
INSYLSWYQQKPGKAPKSLIYRANRLVDGVPSRFSGSGSGTDYTLTISSLQ
PEDFAVYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 7E

(SEQ ID NO. 25)

ATGGACATGAGGGTCTCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGG
CTCTCAGGAGCCAGATGTGACATCCAGATGACACAGTCTCCATCTTCC
CTGTCTGCATCTATAGGAGACAGAGTCACTATCACTTGCAAGGCGAGT
CAGGACATTAATAGCTATTTAAGCTGGTACCAGCAGAAACCAGGGAA
AGCTCCTAAGTCCCTGATCTATCGTGCAAACAGATTGGTAGATGGGGT
TCCATCAAGGTTCAGTGGCAGTGGATCTGGGACAGATTATACTCTCAC
CATCAGCAGCCTGCAGCCTGAAGATTTCGCAGTTTATTATTGTCTACA
GTATGATGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAAT
AAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGAT
GAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGA
CAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTG
AGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG

FIGURE 7F: A schematic representation of the light chain of antibody hB7V4V1-hG1.

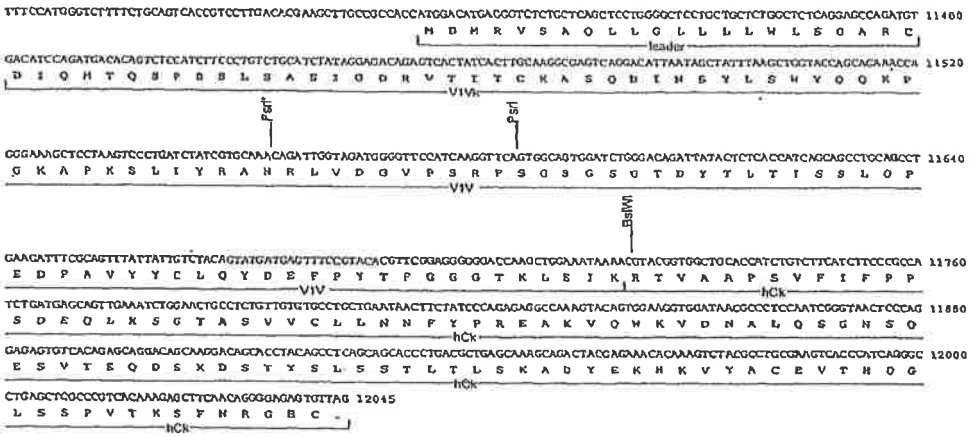


FIGURE 8A

hB7V3V1-hG1 (SEQ ID NO. 11)
Heavy chain

MGWSRIFLFLLSIIAGVHCQVQLQQSGSELKKPGASVKISCKASGYSFTDY
IILWVRQNPGKGLEWIGHIDPYYGSSNYNLKFKGRVTITADQSTTTAYME
LSSLRSEDTAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLAPSS
KSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCP
PCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK
CKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSR
WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIGURE 8B

(SEQ ID NO. 10) (cDNA hG1)

ATGGGATGGAGCCGGATCTTTCTCTTCCTCCTGTCAATAATTGCAGGTG
TCCATTGCCAGGTCCAGCTGCAACAGTCTGGATCTGAGCTGAAGAAGC
CTGGGGCTTCAGTGAAGATCTCCTGCAAGGCTTCTGGTTATTCATTCAC
TGACTACATCATACTCTGGGTGAGGCAGAACCCTGGAAAGGGCCTTGA
GTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTG
AAATTCAAGGGCAGAGTGACAATCACCGCCGACCAGTCTACCACCAC
AGCCTACATGGAGCTCTCCAGTCTGAGATCTGAGGACACTGCAGTCTA
TTACTGTGGAAGATCTAAGAGGGACTACTTTGACTACTGGGGCCAAGG
CACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTC
CCGCTAGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTG
GGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGG
AACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTA
CAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCC
AGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCC
AGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAA
AACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCTGGGGGGACC
GTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCC
CGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTG
TGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTA
CACCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAGCC
TGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGT
GGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCC
GTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG
GACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGAT
GCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTC
TCCGGGTAAATGA

FIGURE 8C: A schematic representation of the heavy chain of antibody hB7V3V1-hG1.

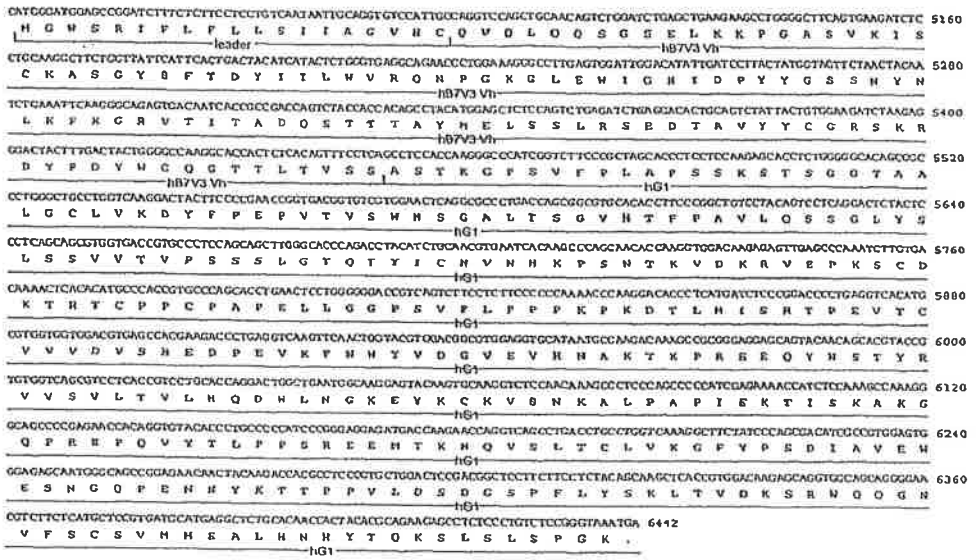


FIGURE 8D

Light chain (human Ck) (SEQ ID NO. 26)

MDMRVSAQLLGLLLLWLSGARCDIQMTQSPSSLSASIGDRVTITCKASQD
INSYLSWYQQKPGKAPKSLIYRANRLVDGVPSRFSGSGSGTDYTLTISSLQ
PEDFAVYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 8E

(SEQ ID NO. 25)

ATGGACATGAGGGTCTCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGG
CTCTCAGGAGCCAGATGTGACATCCAGATGACACAGTCTCCATCTTCC
CTGTCTGCATCTATAGGAGACAGAGTCACTATCACTTGCAAGGCGAGT
CAGGACATTAATAGCTATTTAAGCTGGTACCAGCAGAAACCAGGGAA
AGCTCCTAAGTCCCTGATCTATCGTGCAAACAGATTGGTAGATGGGGT
TCCATCAAGGTTCAGTGGCAGTGGATCTGGGACAGATTATACTCTCAC
CATCAGCAGCCTGCAGCCTGAAGATTTCGCAGTTTATTATTGTCTACA
GTATGATGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAAT
AAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGAT
GAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGA
CAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTG
AGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG.

FIGURE 8F: A schematic representation of the light chain of antibody hB7V3V1-hG1.

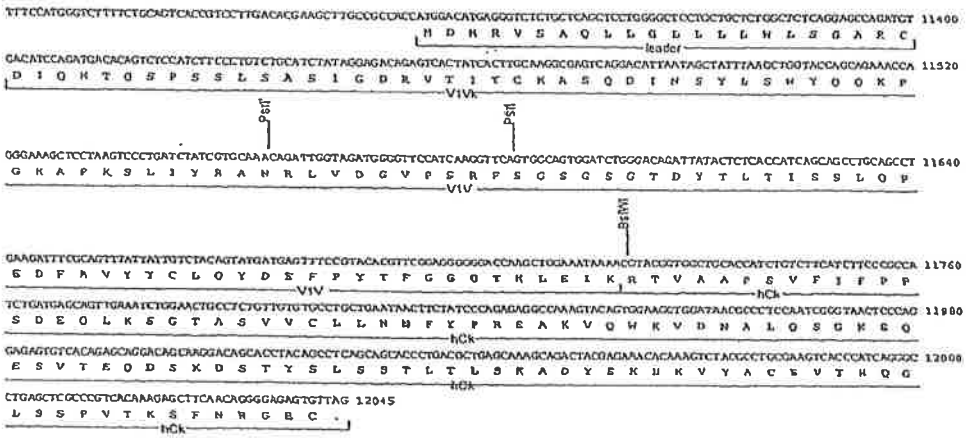


FIGURE 9A

hB7V3V2-hG1

Heavy chain (SEQ ID NO. 11)

MGWSRIFLFLLSIIAGVHCQVQLQQSGSELKKPGASVKISCKASGYSFTDY
IILWVRQNPGKGLEWIGHIDPYYGSSNYNLKFKGRVTITADQSTTTAYME
LSSLRSEDTAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLAPSS
KSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCP
PCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKF
NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK
CKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL
VKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSR
WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIGURE 9B

(SEQ ID NO. 10) (cDNA hGI)

ATGGGATGGAGCCGGATCTTTCTCTTCCTCCTGTCAATAATTGCAGGTG
TCCATTGCCAGGTCCAGCTGCAACAGTCTGGATCTGAGCTGAAGAAGC
CTGGGGCTTCAGTGAAGATCTCCTGCAAGGCTTCTGGTTATTCATTCAC
TGACTACATCATACTCTGGGTGAGGCAGAACCCTGGAAAGGGCCTTGA
GTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTG
AAATTCAAGGGCAGAGTGACAATCACCGCCGACCAGTCTACCACCAC
AGCCTACATGGAGCTCTCCAGTCTGAGATCTGAGGACACTGCAGTCTA
TTACTGTGGAAGATCTAAGAGGGACTACTTTGACTACTGGGGCCAAGG
CACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTC
CCGCTAGCACCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTG
GGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGG
AACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTA
CAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCC
AGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCC
AGCAACACCAAGGTGGACAAGAGAGTTGAGCCCAAATCTTGTGACAA
AACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCTGGGGGGACC
GTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCC
CGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGA
CCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTG
TGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAATGGCAAGG
AGTACAAGTGCAAGGTCTCCAACAAAGCCCTCCCAGCCCCCATCGAG
AAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGAACCACAGGTGTA
CACCCTGCCCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAGCC
TGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGT
GGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCC
GTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTG
GACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGAT
GCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTC
TCCGGGTAAATGA

FIGURE 9C: A schematic representation of the heavy chain of antibody hB7V3V2-hG1.

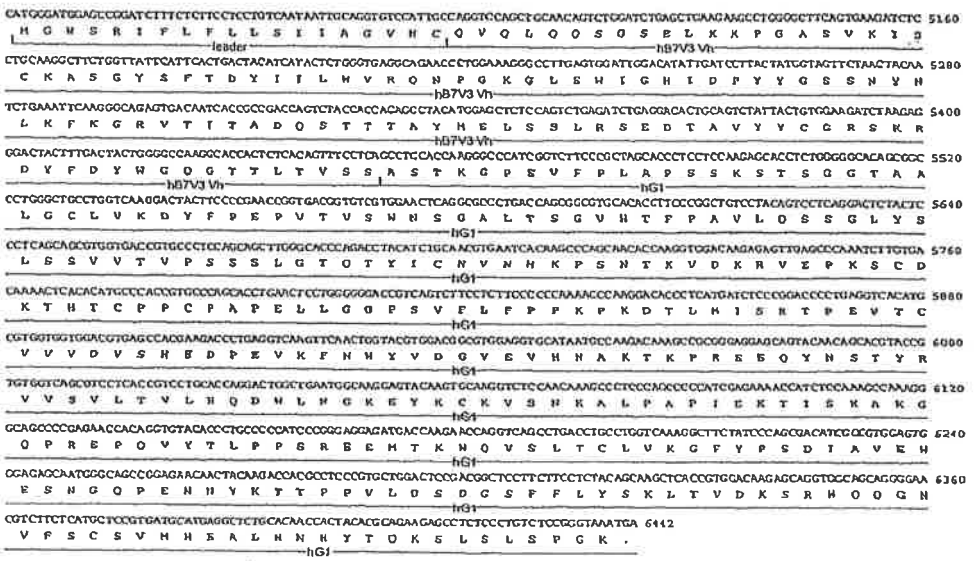


FIGURE 9D

Light Chain (human Ck) (SEQ ID NO. 28)

MDMRVSAQLLGLLLLWLSGARCDIQMTQSPSSLSASIGDRVTITCKASQD
INSYLSWFQQKPGKAPKLLIYRANRLVDGVPSRFSGSGSGTDYTLTISSLQ
PEDFAVYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 9E

(SEQ ID NO. 27)

ATGGACATGAGGGTCTCTGCTCAGCTCCTGGGGGCTCCTGCTGCTCTGG
CTCTCAGGGGCCAGGTGTGACATCCAGATGACACAGTCTCCATCTTCC
CTGTCTGCATCTATAGGAGACAGAGTCACTATCACTTGCAAGGCGAGT
CAGGACATTAATAGCTATTTAAGCTGGTTCCAGCAGAAACCAGGGAA
AGCTCCTAAGCTGCTGATCTATCGTGCAAACAGATTGGTAGATGGGGT
TCCATCAAGGTTCAGTGGCAGTGGATCTGGGACAGATTATACTCTCAC
CATCAGCAGCCTGCAGCCTGAAGATTTCGCAGTTTATTATTGTCTACA
GTATGATGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAAT
AAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGAT
GAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGA
CAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTG
AGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG

FIGURE 9F: A schematic representation of the light chain of antibody hB7V3V2-hG1.

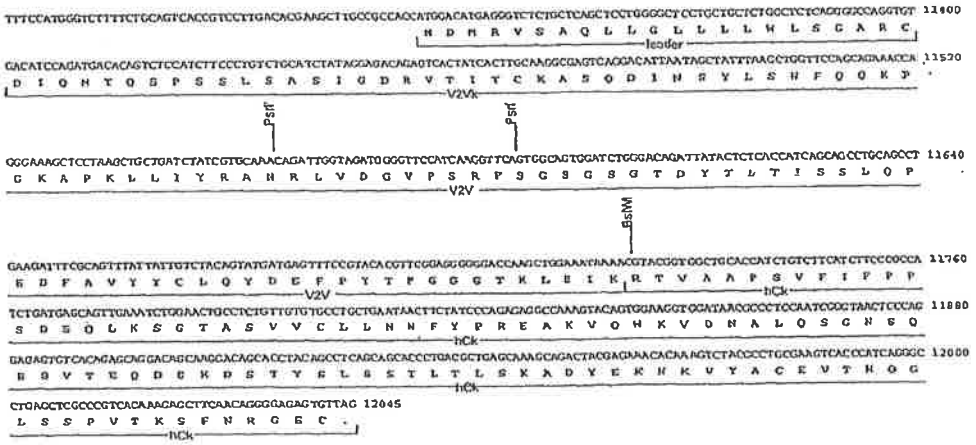


FIGURE 10A

hB7V3V2-hG2G4

Heavy chain (SEQ ID NO. 13)

MGWSRIFLFLLSIIAGVHCQVQLQQSGSELKKPGASVKISCKASGYSFTDY
IILWVRQNPGKGLEWIGHIDPYYGSSNYNLKFKGRVTITADQSTTTAYME
LSSLRSEDTAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLAPC
SRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDKTVERKCCVECPPCP
APPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFNWYV
DGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSN
KGLPSSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFY
PSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTVDKSRWQEG
NVFSCSVMHEALHNHYTQKSLSLSLGK

FIGURE 10B

(SEQ ID NO. 43) (genomic sequence hG2G4)

CCACCAGACATAATAGCTGACAGACTAACAGACTGTTCCTTTCCATGGGTCTTTTCTGCAGTCA
CCGTCCTTGACACGAAGCTTGCCGCCACCATGGGATGGAGCCGGATCTTTCTCTTCCTCCTGTC
AATAATTGCAGGTGTCCATTGCCAGGTCCAGCTGCAACAGTCTGGATCTGAGCTGAAGAAGCCT
GGGGCTTCAGTGAAGATCTCCTGCAAGGCTTCTGGTTATTCATTCACTGACTACATCATACTCT
GGGTGAGGCAGAACCCTGGAAAGGGCCTTGAGTGGATTGGACATATTGATCCTTACTATGGTAG
TTCTAACTACAATCTGAAATTCAAGGGCAGAGTGACAATCACCGCCGACCAGTCTACCACCACA
GCCTACATGGAGCTCTCCAGTCTGAGATCTGAGGACACTGCAGTCTATTACTGTGGAAGATCTA
AGAGGGACTACTTTGACTACTGGGGCCAAGGCACCACTCTCACAGTTTCCTCAGCCTCCACCAA
GGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGCCGCCCTG
GGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGA
CCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGT
GGTGACCGTGCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCC
AGCAACACCAAGGTGGACAAGACAGTTGGTGAGAGGCCAGCTCAGGGAGGGAGGGTGTCTGCTG
GAAGCCAGGCTCAGCCCTCCTGCCTGGACGCACCCCGGCTGTGCAGCCCCAGCCCAGGGCAGCA
AGGCAGGCCCCATCTGTCTCCTCACCCGGAGGCCTCTGCCCGCCCCACTCATGCTCAGGGAGAG
GGTCTTCTGGCTTTTTCCACCAGGCTCCAGGCAGGCACAGGCTGGGTGCCCCTACCCCAGGCCC
TTCACACACAGGGGCAGGTGCTTGGCTCAGACCTGCCAAAAGCCATATCCGGGAGGACCCTGCC
CCTGACCTAAGCCGACCCCAAAGGCCAAACTGTCCACTCCCTCAGCTCGGACACCTTCTCTCCT
CCCAGATCCGAGTAACTCCCAATCTTCTCTCTGCAGAGCGCAAATGTTGTGTCGAGTGCCCACC
GTGCCCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTCAAGGCGGGACAGGTGCCCTAGAGTA
GCCTGCATCCAGGGACAGGCCCCAGCTGGGTGCTGACACGTCCACCTCCATCTCTTCCTCAGCA
CCACCTGTGGCAGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCT
CCCGGACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCCAGTT
CAACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTTC
AACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAACGGCAAGG
AGTACAAGTGCAAGGTCTCCAACAAAGGCCTCCCGTCCTCCATCGAGAAAACCATCTCCAAAGC
CAAAGGTGGGACCCACGGGGTGCGAGGGCCACATGGACAGAGGTCAGCTCGGCCCACCCTCTGC
CCTGGGAGTGACCGCTGTGCCAACCTCTGTCCCTACAGGGCAGCCCCGAGAGCCACAGGTGTAC
ACCCTGCCCCCATCCCAGGAGGAGATGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAG
GCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAA
GACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGCAGGCTAACCGTGGAC
AAGAGCAGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACC
ACTACACACAGAAGAGCCTCTCCCTGTCTCTGGGTAAATGATGAGAATTCATTGATCATAATCA
GCCATACCACATTTGTAGAGGTTTTACTTGCTTTAAAAAACCTCCCAC

FIGURE 10C: A schematic representation of the heavy chain of antibody hB7V3V2-hG2G4.

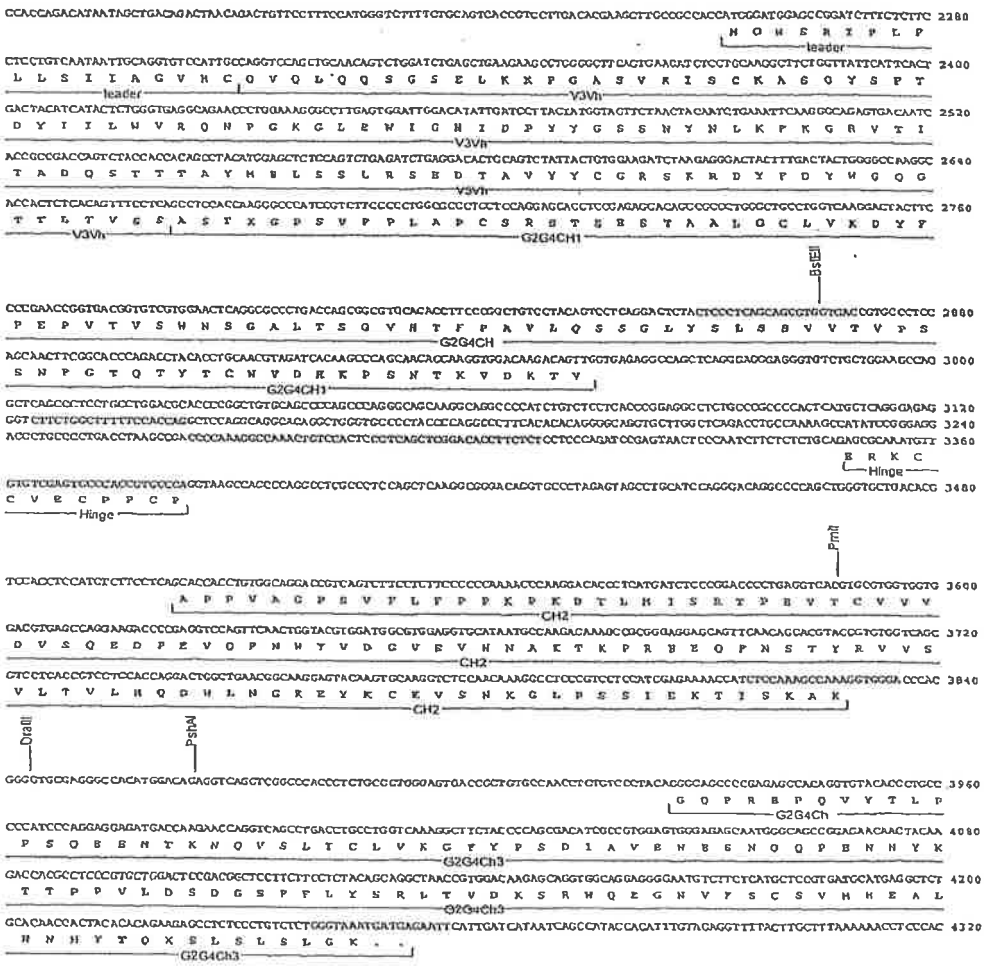


FIGURE 10D

Light Chain (human Ck) (SEQ ID NO. 28)

MDMRVSAQLLGLLLLWLSGARCDIQMTQSPSSLSASIGDRVTITCKASQD
INSYLSWFQQKPGKAPKLLIYRANRLVDGVPSRFSGSGSGTDYTLTISSLQ
PEDFAVYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 10E

(SEQ ID NO. 27)

ATGGACATGAGGGTCTCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGG
CTCTCAGGGGCCAGGTGTGACATCCAGATGACACAGTCTCCATCTTCC
CTGTCTGCATCTATAGGAGACAGAGTCACTATCACTTGCAAGGCGAGT
CAGGACATTAATAGCTATTTAAGCTGGTTCCAGCAGAAACCAGGGAA
AGCTCCTAAGCTGCTGATCTATCGTGCAAACAGATTGGTAGATGGGGT
TCCATCAAGGTTCAGTGGCAGTGGATCTGGGACAGATTATACTCTCAC
CATCAGCAGCCTGCAGCCTGAAGATTTCGCAGTTTATTATTGTCTACA
GTATGATGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAAT
AAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGAT
GAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGA
CAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTG
AGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG

FIGURE 10F: A schematic representation of the light chain of antibody hB7V3V2-hG2G4.

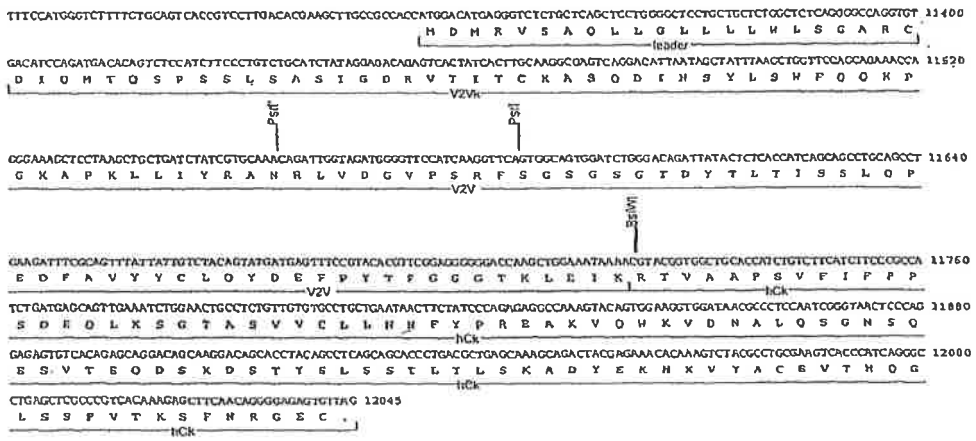


FIGURE 11A

chC2aB7-hG2G4

Heavy chain (SEQ ID NO. 15)

MGWSCIILFLVATATGVHSLEVQLQQSGPELVKPGASLKMSCKASGYSFT
DYIILWVKQNHGKSLEWIGHIDPYYGSSNYNLKFKGKATLTVDKSSSTAY
MQLNSLTSEDSAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLA
PCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSS
GLYSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDKTVERKCCVECP
PCPAPPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFN
WYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKC
KVSNKGLPSSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLV
KGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTVDKSR
WQEGNVFSCSVMHEALHNHYTQKSLSLSLGK

FIGURE 11B

(SEQ ID NO. 14) (genomic sequence hG2G4)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCTCGAG
GTCCAGCTGCAACAGTCTGGACCTGAGCTGGTGAAGCCTGGGGCTTCACTGAAGATGTCCTGC
AAGGCTTCTGGTTATTCATTCACTGACTACATCATACTCTGGGTGAAGCAGAACCATGGAAAG
AGCCTTGAGTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTGAAATTCA
AGGGCAAGGCCACATTGACTGTAGACAAATCTTCCAGCACAGCCTACATGCAGCTCAACAGT
CTGACATCTGAGGACTCTGCAGTCTATTACTGTGGAAGATCTAAGAGGGACTACTTTGACTAC
TGGGGCCAAGGCACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCCGTCTTCCCC
CTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGCCGCCCTGGGCTGCCTGGTCAAGGA
CTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCGTGCACAC
CTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCC
AGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCCAGCAACACCAAGGT
GGACAAGACAGTTGGTGAGAGGCCAGCTCAGGGAGGGAGGGTGTCTGCTGGAAGCCAGGCTC
AGCCCTCCTGCCTGGACGCACCCCGGCTGTGCAGCCCCAGCCCAGGGCAGCAAGGCAGGCCC
CATCTGTCTCCTCACCCGGAGGCCTCTGCCCGCCCCACTCATGCTCAGGGAGAGGGTCTTCTG
GCTTTTTCCACCAGGCTCCAGGCAGGCACAGGCTGGGTGCCCCTACCCCAGGCCCTTCACACA
CAGGGGCAGGTGCTTGGCTCAGACCTGCCAAAAGCCATATCCGGGAGGACCCTGCCCCTGAC
CTAAGCCGACCCCAAAGGCCAAACTGTCCACTCCCTCAGCTCGGACACCTTCTCTCCTCCCAG
ATCCGAGTAACTCCCAATCTTCTCTCTGCAGAGCGCAAATGTTGTGTCGAGTGCCCACCGTGC
CCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTCAAGGCGGGACAGGTGCCCTAGAGTAGC
CTGCATCCAGGGACAGGCCCCAGCTGGGTGCTGACACGTCCACCTCCATCTCTTCCTCAGCAC
CACCTGTGGCAGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGATCT
CCCGGACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCCAG
TTCAACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCA
GTTCAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGAACGG
CAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGCCTCCCGTCCTCCATCGAGAAAACCATCT
CCAAAGCCAAAGGTGGGACCCACGGGGTGCGAGGGCCACATGGACAGAGGTCAGCTCGGCCC
ACCCTCTGCCCTGGGAGTGACCGCTGTGCCAACCTCTGTCCCTACAGGGCAGCCCCGAGAGCC
ACAGGTGTACACCCTGCCCCCATCCCAGGAGGAGATGACCAAGAACCAGGTCAGCCTGACCT
GCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCG
GAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTCTACAGC
AGGCTAACCGTGGACAAGAGCAGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGTGATGCA
TGAGGCTCTGCACAACCACTACACACAGAAGAGCCTCTCCCTGTCTCTGGGTAAATGA

FIGURE 11C: A schematic representation of the heavy chain of antibody chC2aB7-hG2G4 (amino acids 1-337).

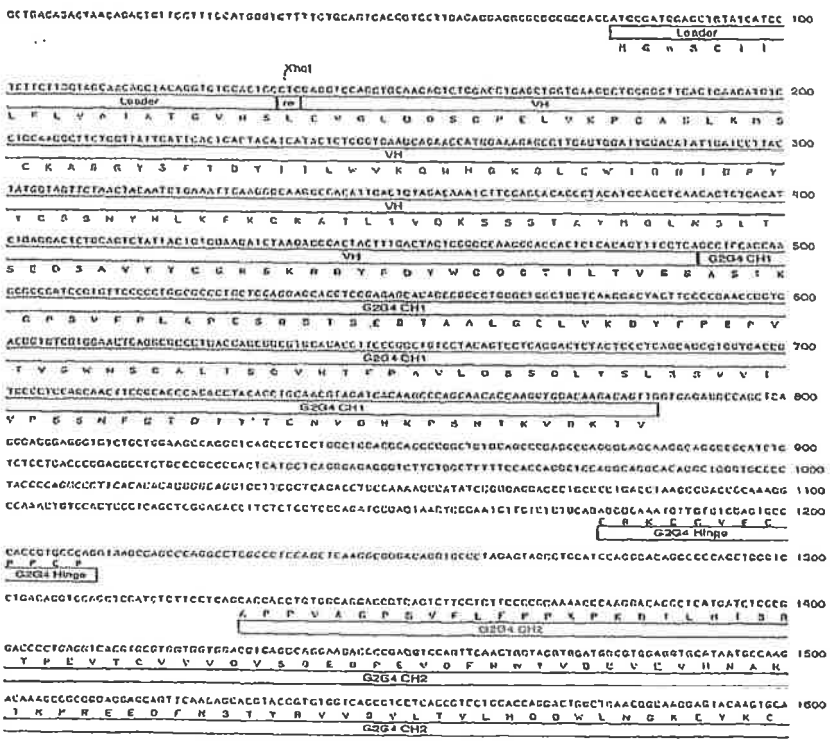


FIGURE 11D
Light Chain (human Ck) (SEQ ID NO. 24)
MGWSCIILFLVATATGVHSRDIQMTQSPSSMYASLGERVTITCKASQDINS
YLSWFQQKPGKSPKTLIYRANRLVDGVPSRFSGSGSGQDYSLTISSLEYED
MGIYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASV
VCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTL
TLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 11E
(SEQ ID NO. 23)
ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGT
GTCCACTCTAGAGACATCCAGATGACACAGTCTCCATCTTCCATGTAT
GCATCTCTAGGAGAGAGAGTCACTATCACTTGCAAGGCGAGTCAGGA
CATTAATAGCTATTTAAGCTGGTTCCAGCAGAAACCAGGGAAATCTCC
TAAGACCCTGATCTATCGTGCAAACAGATTGGTAGATGGGGTTCCATC
AAGGTTCAGTGGCAGTGGATCTGGGCAAGATTATTCTCTCACCATCAG
CAGCCTGGAGTATGAAGATATGGGAATTTATTATTGTCTACAGTATGA
TGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAATAAAAC
GGACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCA
GTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTAT
CCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTCCAATC
GGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGACAGCA
CCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACTACGAG
AAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCTC
GCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAA

FIGURE 11F: A schematic representation of the light chain of antibody chC2aB7-hG2G4.

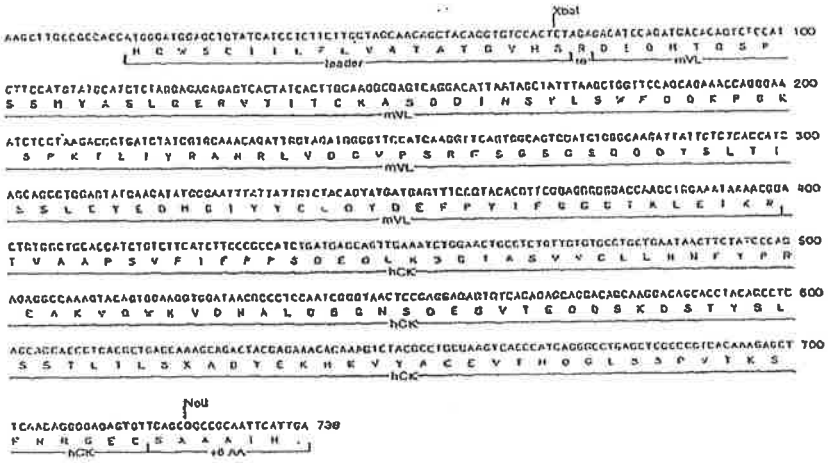


FIGURE 12A

hB7V3V2-cG2G4
Heavy Chain (SEQ ID NO. 13)

MGWSRIFLFLLSIIAGVHCQVQLQQSGSELKKPGASVKISCKASGYSFTDY
IILWVRQNPGKGLEWIGHIDPYYGSSNYNLKFKGRVTITADQSTTTAYME
LSSLRSEDTAVYYCGRSKRDYFDYWGQGTTLTVSSASTKGPSVFPLAPC
SRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDKTVERKCCVECPPCP
APPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDPEVQFNWYV
DGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYKCKVSN
KGLPSSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVSLTCLVKGFY
PSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTVDKSRWQEG
NVFSCSVMHEALHNHYTQKSLSLSLGK

FIGURE 12B

(SEQ ID NO. 16) (cDNA G2G4)

ATGGGATGGAGCCGGATCTTTCTCTTCCTCCTGTCAATAATTGCAGGTG
TCCATTGCCAGGTCCAGCTGCAACAGTCTGGATCTGAGCTGAAGAAGC
CTGGGGCTTCAGTGAAGATCTCCTGCAAGGCTTCTGGTTATTCATTCAC
TGACTACATCATACTCTGGGTGAGGCAGAACCCTGGAAAGGGCCTTGA
GTGGATTGGACATATTGATCCTTACTATGGTAGTTCTAACTACAATCTG
AAATTCAAGGGCAGAGTGACAATCACCGCCGACCAGTCTACCACCAC
AGCCTACATGGAGCTCTCCAGTCTGAGATCTGAGGACACTGCAGTCTA
TTACTGTGGAAGATCTAAGAGGGACTACTTTGACTACTGGGGCCAAGG
CACCACTCTCACAGTTTCCTCAGCCTCCACCAAGGGCCCATCCGTCTTC
CCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGCCGCCCTG
GGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGG
AACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTA
CAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCC
AGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCC
AGCAACACCAAGGTGGACAAGACAGTTGAGCGCAAATGTTGTGTCGA
GTGCCCACCGTGCCCAGCACCACCTGTGGCAGGACCGTCAGTCTTCCT
CTTCCCCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGA
GGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAGGTCC
AGTTCAACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACA
AAGCCGCGGGAGGAGCAGTTCAACAGCACGTACCGTGTGGTCAGCGT
CCTCACCGTCCTGCACCAGGACTGGCTGAACGGCAAGGAGTACAAGT
GCAAGGTCTCCAACAAAGGCCTCCCGTCCTCCATCGAGAAAACCATCT
CCAAAGCCAAAGGGCAGCCCCGAGAGCCACAGGTGTACACCCTGCCC
CCATCCCAGGAGGAGATGACCAAGAACCAGGTCAGCCTGACCTGCCT
GGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCA
ATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGAC
TCCGACGGCTCCTTCTTCCTCTACAGCAGGCTAACCGTGGACAAGAGC
AGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGTGATGCATGAGGCT
CTGCACAACCACTACACACAGAAGAGCCTCTCCCTGTCTCTGGGTAAA
TGATG

FIGURE 12C: A schematic representation of the heavy chain of antibody hB7V3V2-cG2G4.

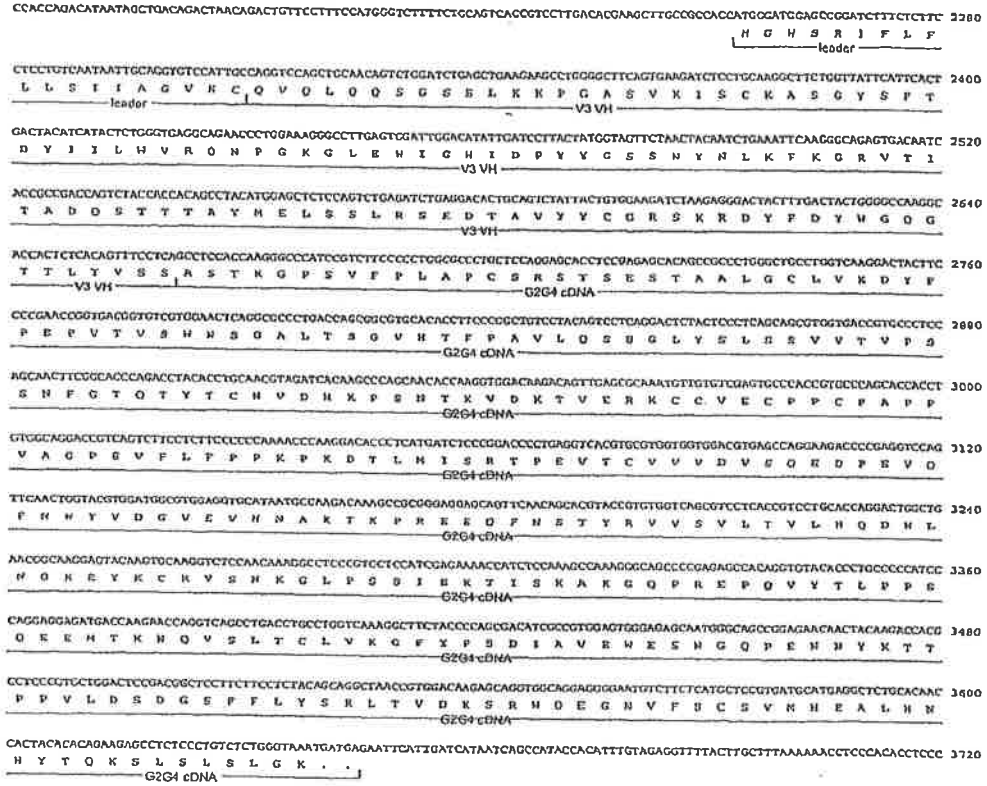


FIGURE 12D

Light Chain (human Ck) (SEQ ID NO. 28)

MDMRVSAQLLGLLLLWLSGARCDIQMTQSPSSLSASIGDRVTITCKASQD
INSYLSWFQQKPGKAPKLLIYRANRLVDGVPSRFSGSGSGTDYTLTISSLQ
PEDFAVYYCLQYDEFPYTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
STLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 12E

(SEQ ID NO. 27)

ATGGACATGAGGGTCTCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGG
CTCTCAGGGGCCAGGTGTGACATCCAGATGACACAGTCTCCATCTTCC
CTGTCTGCATCTATAGGAGACAGAGTCACTATCACTTGCAAGGCGAGT
CAGGACATTAATAGCTATTTAAGCTGGTTCCAGCAGAAACCAGGGAA
AGCTCCTAAGCTGCTGATCTATCGTGCAAACAGATTGGTAGATGGGGT
TCCATCAAGGTTCAGTGGCAGTGGATCTGGGACAGATTATACTCTCAC
CATCAGCAGCCTGCAGCCTGAAGATTTCGCAGTTTATTATTGTCTACA
GTATGATGAGTTTCCGTACACGTTCGGAGGGGGGACCAAGCTGGAAAT
AAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGAT
GAGCAGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAAC
TTCTATCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGA
CAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACT
ACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTG
AGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAG

FIGURE 12F: A schematic representation of the light chain of antibody hB7V3V2-cG2G4.



FIGURE 13A

ChC7-hG2G4

Heavy chain (genomic sequence hG2G4) (SEQ ID NO. 18)

MGWSCIILFLVATATGVHSLEVQLQQSGPELEKPGASVKISCKASGYSFTG
YNMNWVKQSSGKSLEWIGNFDPYYGVITYNQKFKGKATLTVDKSSSTAY
MQLKSLTSEDSAVYYCARTATALYTMDYWGQGTSVTVSSASTKGPSVF
PLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL
QSSGLYSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDKTVERKCCVE
CPPCPGKPAPPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSQEDP
EVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNG
KEYKCKVSNKGLPSSIEKTISKAKGQPREPQVYTLPPSQEEMTKNQVS
LTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSRLTV
DKSRWQEGNVFSCSVMHEALHNHYTQKSLSLSLGK

FIGURE 13B

(SEQ ID NO. 17)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCTCGAG
GTCCAACTGCAGCAGTCTGGACCTGAGCTGGAGAAGCCTGGCGCTTCAGTGAAGATATCCTGC
AAGGCTTCTGGTTACTCATTCACTGGCTACAACATGAACTGGGTGAAGCAGAGCAGTGGAAA
GAGCCTTGAGTGGATTGGAAATTTTGATCCTTACTATGGTGTTATTACCTACAACCAGAAGTTC
AAGGGCAAGGCCACATTGACTGTAGACAAATCCTCCAGCACAGCCTACATGCAGCTCAAGAG
CCTGACATCTGAGGACTCTGCAGTCTATTACTGTGCAAGAACGGCTACGGCTCTCTATACTAT
GGACTACTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCCGT
CTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAGCACAGCCGCCCTGGGCTGCCTGGT
CAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCG
TGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGT
GCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCCAGCAACA
CCAAGGTGGACAAGACAGTTGGTGAGAGGCCAGCTCAGGGAGGGAGGGTGTCTGCTGGAAGC
CAGGCTCAGCCCTCCTGCCTGGACGCACCCCGGCTGTGCAGCCCCAGCCCAGGGCAGCAAGG
CAGGCCCCATCTGTCTCCTCACCCGGAGGCCTCTGCCCGCCCCACTCATGCTCAGGGAGAGGG
TCTTCTGGCTTTTTCCACCAGGCTCCAGGCAGGCACAGGCTGGGTGCCCCTACCCCAGGCCCTT
CACACACAGGGGCAGGTGCTTGGCTCAGACCTGCCAAAAGCCATATCCGGGAGGACCCTGCC
CCTGACCTAAGCCGACCCCAAAGGCCAAACTGTCCACTCCCTCAGCTCGGACACCTTCTCTCC
TCCCAGATCCGAGTAACTCCCAATCTTCTCTCTGCAGAGCGCAAATGTTGTGTCGAGTGCCCA
CCGTGCCCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTCAAGGCGGGACAGGTGCCCTAG
AGTAGCCTGCATCCAGGGACAGGCCCCAGCTGGGTGCTGACACGTCCACCTCCATCTCTTCCT
CAGCACCACCTGTGGCAGGACCGTCAGTCTTCCTCTTCCCCCCAAAACCCAAGGACACCCTCA
TGATCTCCCGGACCCCTGAGGTCACGTGCGTGGTGGTGGACGTGAGCCAGGAAGACCCCGAG
GTCCAGTTCAACTGGTACGTGGATGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGGA
GGAGCAGTTCAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCT
GAACGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGCCTCCCGTCCTCCATCGAGAAAA
CCATCTCCAAAGCCAAAGGTGGGACCCACGGGGTGCGAGGGCCACATGGACAGAGGTCAGCT
CGGCCCACCCTCTGCCCTGGGAGTGACCGCTGTGCCAACCTCTGTCCCTACAGGGCAGCCCCG
AGAGCCACAGGTGTACACCCTGCCCCCATCCCAGGAGGAGATGACCAAGAACCAGGTCAGCC
TGACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGG
CAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCCTC
TACAGCAGGCTAACCGTGGACAAGAGCAGGTGGCAGGAGGGGAATGTCTTCTCATGCTCCGT
GATGCATGAGGCTCTGCACAACCACTACACACAGAAGAGCCTCTCCCTGTCTCTGGGTAAATG
A

FIGURE 13C

Light Chain (human Ck) (SEQ ID NO. 30)

MGWSCIILFLVATATGVHSREIVLTQSPAIMSASPGEKVTMTCRASSSVSS
SYLHWYQQKSGASPKLWIYSTSNLASGVPARFSGSGSGTSYSLTISSVEAE
DAATYYCQQYSGYPLTFGSGTKLEIKRTVAAPSVFIFPPSDEQLKSGTAS
VVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSST
LTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 13D

(SEQ ID NO. 29)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGT
GTCCACTCTAGAGAAATTGTGCTCACCCAGTCTCCAGCAATCATGTCT
GCATCTCCAGGGGAAAAGGTCACCATGACCTGCAGGGCCAGCTCAAG
TGTAAGTTCCAGTTACTTGCACTGGTACCAGCAGAAGTCAGGTGCCTC
CCCCAAACTCTGGATTTATAGCACATCCAACTTGGCTTCTGGAGTCCCT
GCTCGCTTCAGTGGCAGTGGGTCTGGGACCTCTTACTCTCTCACAATCA
GCAGTGTGGAGGCTGAAGATGCTGCCACTTATTACTGCCAGCAGTACA
GTGGTTACCCACTCACGTTCGGCTCGGGGACAAAGTTGGAAATAAAAC
GGACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCCGATGAGC
AGTTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTA
TCCCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTCCAAT
CGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGACAGC
ACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGACTACGA
GAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCT
CGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAA

FIGURE 14A

D1B5-hG1
Heavy Chain (SEQ ID NO. 20)

MGWSCIILFLVATATGVHSLEVQLQQPGAELVRSGASVKLSCKASGFNIK
DYYIHWVKQRPEQGLEWIGWIDPEIGATKYVPKFQGKATMTTDTSSNTA
YLQLSSLTSEDTAVYYCNALYGNYDRYYAMDYWGQGTSVTVSSASTKG
PSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTF
PAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKS
CDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVS
HEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQD
WLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMT
KNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLY
SKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIGURE 14B

(SEQ ID NO. 19) (genomic sequence hG1 constant region)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCTCGAG
GTCCAACTGCAGCAGCCTGGGGCAGAGCTTGTGAGGTCAGGGGCCTCAGTCAAGTTGTCCTGC
AAAGCTTCTGGCTTCAACATTAAAGACTACTATATACACTGGGTGAAGCAGAGGCCTGAACA
GGGCCTGGAGTGGATTGGATGGATTGATCCTGAGATTGGTGCTACTAAATATGTCCCGAAGTT
CCAGGGCAAGGCCACTATGACTACAGACACATCCTCCAACACAGCCTACCTGCAGCTCAGCA
GCCTGACATCTGAGGACACTGCCGTCTATTACTGTAATGCCCTCTATGGTAACTACGACCGTT
ACTATGCTATGGACTACTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCTCCACCAAGG
GCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGAGCACCTCTGGCGGCACAGCGGCCCTGG
GCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGCCCTGA
CCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCG
TGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAGAGTTGGTGAGAGGCCAGCACAGGGAGGGAGGGTGTC
TGCTGGAAGCCAGGCTCAGCGCTCCTGCCTGGACGCATCCCGGCTATGCAGTCCCAGTCCAGG
GCAGCAAGGCAGGCCCCGTCTGCCTCTTCACCCGGAGGCCTCTGCCCGCCCCACTCATGCTCA
GGGAGAGGGTCTTCTGGCTTTTTCCCCAGGCTCTGGGCAGGCACAGGCTAGGTGCCCCTAACC
CAGGCCCTGCACACAAAGGGGCAGGTGCTGGGCTCAGACCTGCCAAGAGCCATATCCGGGAG
GACCCTGCCCCTGACCTAAGCCCACCCCAAAGGCCAAACTCTCCACTCCCTCAGCTCGGACAC
CTTCTCTCCTCCCAGATTCCAGTAACTCCCAATCTTCTCTCTGCAGAGCCCAAATCTTGTGACA
AAACTCACACATGCCCACCGTGCCCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTCAAGGC
GGGACAGGTGCCCTAGAGTAGCCTGCATCCAGGGACAGGCCCCAGCCGGGTGCTGACACGTC
CACCTCCATCTCTTCCTCAGCACCTGAACTCCTGGGGGGGACCGTCAGTCTTCCTCTTCCCCCCA
AAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTG
AGCCACGAAGACCCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGC
CAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCG
TCCTGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGCCCTC
CCAGCCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGTGGGACCCGTGGGGTGCGAGGGCC
ACATGGACAGAGGCCGGCTCGGCCCACCCTCTGCCCTGAGAGTGACCGCTGTACCAACCTCTG
TCCCTACAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGAGGAGATG
ACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTG
GAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTC
CGACGGCTCCTTCTTCCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGA
ACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCT
CCCTGTCCCCGGGTAAATGA

FIGURE 14C: A schematic representation of the heavy chain of antibody DIB5-hG1.

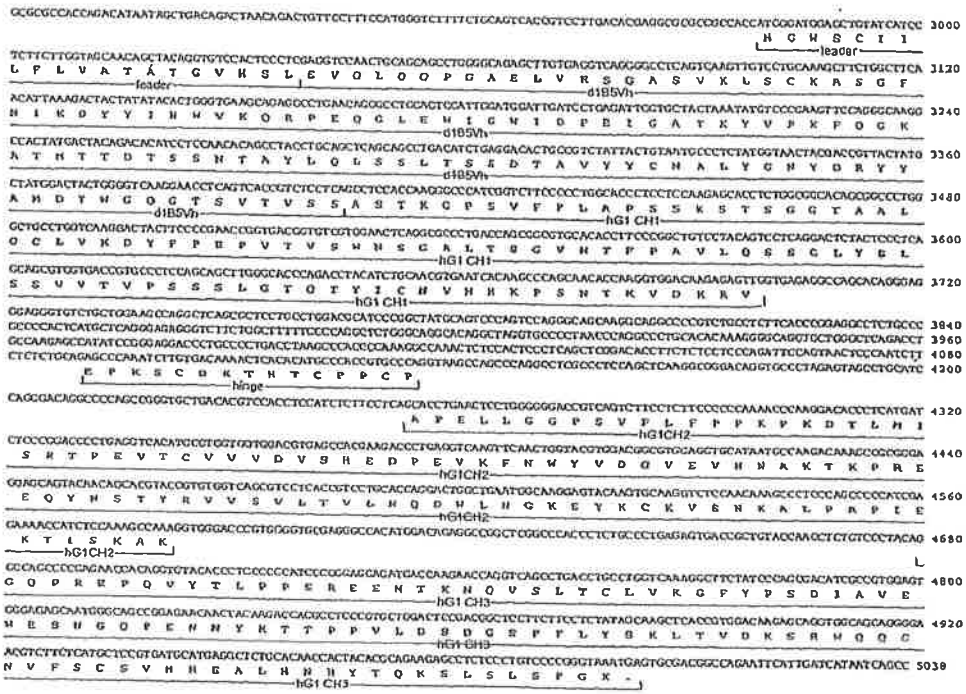


FIGURE 14D

Light chain (human Ck) (SEQ ID NO. 32)

MGWSCIILFLVATATGVHSRDIVMTQSQKFMSTSVGDRVSITCKASQNVR
TAVAWYQQKPGQSPKALIYLASNRHTGVPDRFTGSGSGTDFTLTISNVQS
EDLADYFCLQHWNYPLTFGAGTKLELKRTVAAPSVFIFPPSDEQLKSGT
ASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLS
NTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 14E

(SEQ ID NO. 31)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGT
GTCCACTCTAGAGACATTGTGATGACCCAGTCTCAAAAATTCATGTCC
ACATCAGTAGGAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAGAA
TGTTCGTACTGCTGTAGCCTGGTATCAACAGAAACCAGGGCAGTCTCC
TAAAGCACTGATTTACTTGGCATCCAACCGGCACACTGGAGTCCCTGA
TCGCTTCACAGGCAGTGGATCTGGGACAGATTTCACTCTCACCATTAG
CAATGTGCAATCTGAAGACCTGGCAGATTATTTCTGTCTGCAACATTG
GAATTATCCTCTCACGTTCGGTGCTGGGACCAAGCTGGAGCTGAAACG
GACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAG
TTGAAATCTGGAACTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATC
CCAGAGAGGCCAAAGTACAGTGGAAGGTGGATAACGCCCTCCAATCG
GGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGACAGCAC
CTACAGCCTCAGCAACACCCTGACGCTGAGCAAAGCAGACTACGAGA
AACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCTCGC
CCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAA

FIGURE 14F: A schematic representation of the light chain of antibody D1B5-hG1.

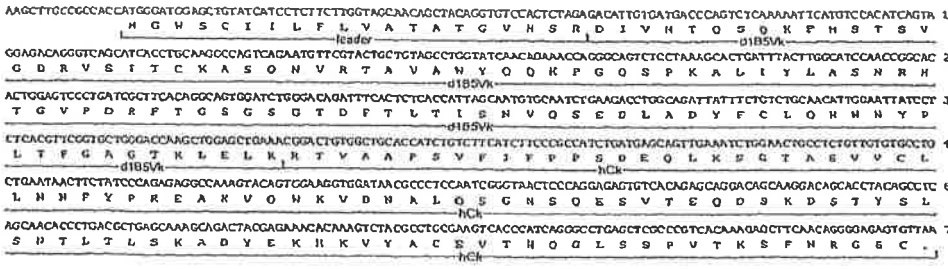


FIGURE 15A

G2G4 63L1D

Heavy chain (SEQ ID NO. 22)

MGWSCIILFLVATATGVHSQMQLVQSGAEVKKPGSSVKVSCKASGGTFS
NYATSWVRQAPGQGLEWLGGIIPVFGTANYAQKFQGRVTITADESTSTAY
MELNSLTFDDTAVYYCARGGGGWGGRNYYYYYYMDVWGKGTTVTVSS
ASTKGPSVFPLAPCSRSTSESTAALGCLVKDYFPEPVTVSWNSGALTS
GVHTFPAVLQSSGLYSLSSVVTVPSSNFGTQTYTCNVDHKPSNTKVDK
TVERKCCVECPPCPAPPVAGPSVFLFPPKPKDTLMISRTPEVTCVVVD
VSQEDPEVQFNWYVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQ
DWLNGKEYKCKVSNKGLPSSIEKTISKAKGQPREPQVYTLPPSQEEM
TKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFL
YSRLTVDKSRWQEGNVFSCSVMHEALHNHYTQKSLSLSLGK

FIGURE 15B

(SEQ ID NO. 21) (genomic sequence hG2G4)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGTGTCCACTCCCAGATG
CAGCTGGTGCAGTCTGGGGCTGAGGTGAAGAAGCCTGGGTCCTCGGTGAAGGTCTCCTGCAA
GGCCTCTGGAGGCACCTTCAGCAACTATGCTACCAGTTGGGTGCGACAGGCCCCTGGACAAG
GTCTTGAGTGGCTGGGAGGGATCATCCCCGTCTTCGGTACTGCAAACTACGCACAGAAGTTTC
AGGGCAGAGTCACCATTACCGCGGACGAGTCCACGAGCACAGCCTACATGGAGTTGAATAGT
CTGACATTTGACGACACGGCCGTCTATTACTGTGCGAGAGGGGGTGGGGGATGGGGAGGCCG
GAACTACTACTACTACTACATGGACGTCTGGGGCAAAGGGACCACTGTCACCGTCTCCTC
AGCCTCCACCAAGGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGAGCACCTCCGAGAG
CACAGCCGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAA
CTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTA
CTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAA
CGTAGATCACAAGCCCAGCAACACCAAGGTGGACAAGACAGTTGGTGAGAGGCCAGCTCAGG
GAGGGAGGGTGTCTGCTGGAAGCCAGGCTCAGCCCTCCTGCCTGGACGCACCCCGGCTGTGC
AGCCCCAGCCCAGGGCAGCAAGGCAGGCCCCATCTGTCTCCTCACCCGGAGGCCTCTGCCCGC
CCCACTCATGCTCAGGGAGAGGGTCTTCTGGCTTTTTCCACCAGGCTCCAGGCAGGCACAGGC
TGGGTGCCCCTACCCCAGGCCCTTCACACACAGGGGCAGGTGCTTGGCTCAGACCTGCCAAAA
GCCATATCCGGGAGGACCCTGCCCCTGACCTAAGCCGACCCCAAAGGCCAAACTGTCCACTCC
CTCAGCTCGGACACCTTCTCTCCTCCCAGATCCGAGTAACTCCCAATCTTCTCTCTGCAGAGCG
CAAATGTTGTGTCGAGTGCCCACCGTGCCCAGGTAAGCCAGCCCAGGCCTCGCCCTCCAGCTC
AAGGCGGGACAGGTGCCCTAGAGTAGCCTGCATCCAGGGACAGGCCCCAGCTGGGTGCTGAC
ACGTCCACCTCCATCTCTTCCTCAGCACCACCTGTGGCAGGACCGTCAGTCTTCCTCTTCCCCC
CAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACGTGCGTGGTGGTGGAC
GTGAGCCAGGAAGACCCCGAGGTCCAGTTCAACTGGTACGTGGATGGCGTGGAGGTGCATAA
TGCCAAGACAAAGCCGCGGGAGGAGCAGTTCAACAGCACGTACCGTGTGGTCAGCGTCCTCA
CCGTCCTGCACCAGGACTGGCTGAACGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGGC
CTCCCGTCCTCCATCGAGAAAACCATCTCCAAAGCCAAAGGTGGGACCCACGGGGTGCGAGG
GCCACATGGACAGAGGTCAGCTCGGCCCACCCTCTGCCCTGGGAGTGACCGCTGTGCCAACCT
CTGTCCCTACAGGGCAGCCCCGAGAGCCACAGGTGTACACCCTGCCCCCATCCCAGGAGGAG
ATGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTACCCCAGCGACATCGCC
GTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGA
CTCCGACGGCTCCTTCTTCCTCTACAGCAGGCTAACCGTGGACAAGAGCAGGTGGCAGGAGG
GGAATGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACACAGAAGAGCC
TCTCCCTGTCTCTGGGTAAATGA

FIGURE 15C

Light chain (human CL) (SEQ ID NO. 34)

MGWSCIILFLVATATGVHSSYVLTQPPSESVAPGQTARISCGGSNIGSYGV
HWYQQKAGQAPVLVVHDDSDRPSGIPERFSGSNSGNTATLTISSVEAGDE
ADYYCQVWDNSAVIFGGGTKLTVLSQPKAAPSVTLFPPSSEELQANKA
TLVCLISDFYPGAVTVAWKADSSPVKAGVETTTPSKQSNNKYAASSYL
SLTPEQWKSHRSYSCQVTHEGSTVEKTVAPTECS

FIGURE 15D

(SEQ ID NO. 33)

ATGGGATGGAGCTGTATCATCCTCTTCTTGGTAGCAACAGCTACAGGT
GTCCACTCTTCCTATGTGCTGACTCAGCCACCCTCGGAGTCAGTGGCC
CCAGGACAGACGGCCAGGATTTCCTGTGGGGGGAGCAACATTGGAAG
TTACGGTGTGCACTGGTACCAGCAGAAGGCAGGACAGGCCCCTGTGCT
GGTCGTCCATGATGATTCCGACCGGCCCTCAGGGATTCCTGAGCGATT
CTCTGGCTCCAATTCTGGGAACACGGCCACCCTGACCATCAGCAGTGT
CGAAGCCGGCGATGAGGCCGACTATTACTGTCAGGTGTGGGATAATA
GTGCTGTGATATTCGGCGGAGGGACCAAACTAACCGTCCTAAGTCAGC
CCAAGGCTGCCCCCTCGGTCACTCTGTTCCCGCCCTCCTCTGAGGAGCT
TCAAGCCAACAAGGCCACACTGGTGTGTCTCATAAGTGACTTCTACCC
GGGAGCTGTGACAGTGGCTTGGAAAGCAGATAGCAGCCCCGTCAAGG
CGGGAGTGGAGACCACCACACCCTCCAAACAAAGCAACAACAAGTAC
GCGGCCAGCAGCTATCTGAGCCTGACGCCTGAGCAGTGGAAGTCCCA
CAGAAGCTACAGCTGCCAGGTCACGCATGAAGGGAGCACCGTGGAGA
AGACAGTGGCCCCTACAGAATGTTCATAA

FIGURE 16
5'-GACAAGCTTGCAAGGATGGAGAGGCTGGTGA-3' (SEQ ID NO: 35)

FIGURE 17
5'-GACGGATCCGCCCCTTTTCCTCCTGCTTTTCTC-3' (SEQ ID NO: 36)

FIGURE 18
Efficacy of humanized anti CD200 antibodies (C2aB7) in the RAJI_CD200/PBL model.

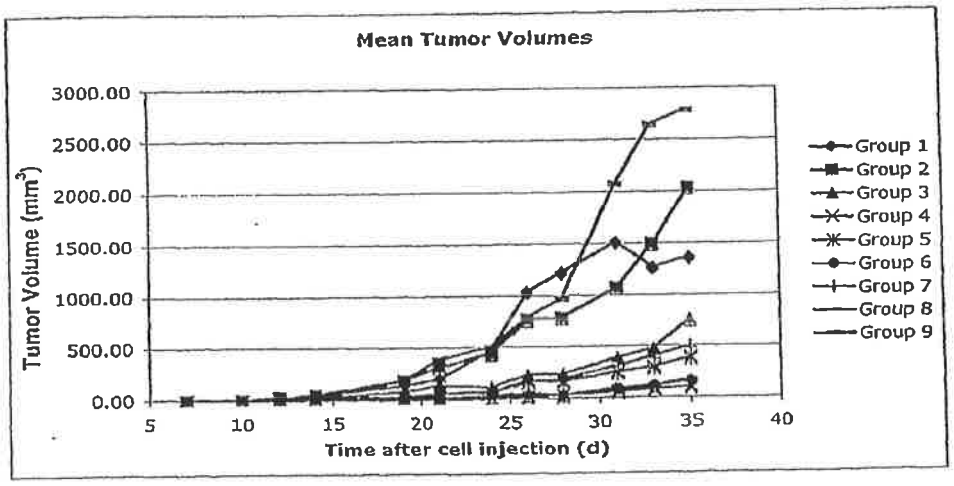


FIGURE 19

Comparison of mean tumor volumes in C2aB7-G1 versus C2aB7-G2G4 treated animals in the Namalwa_CD200 model.

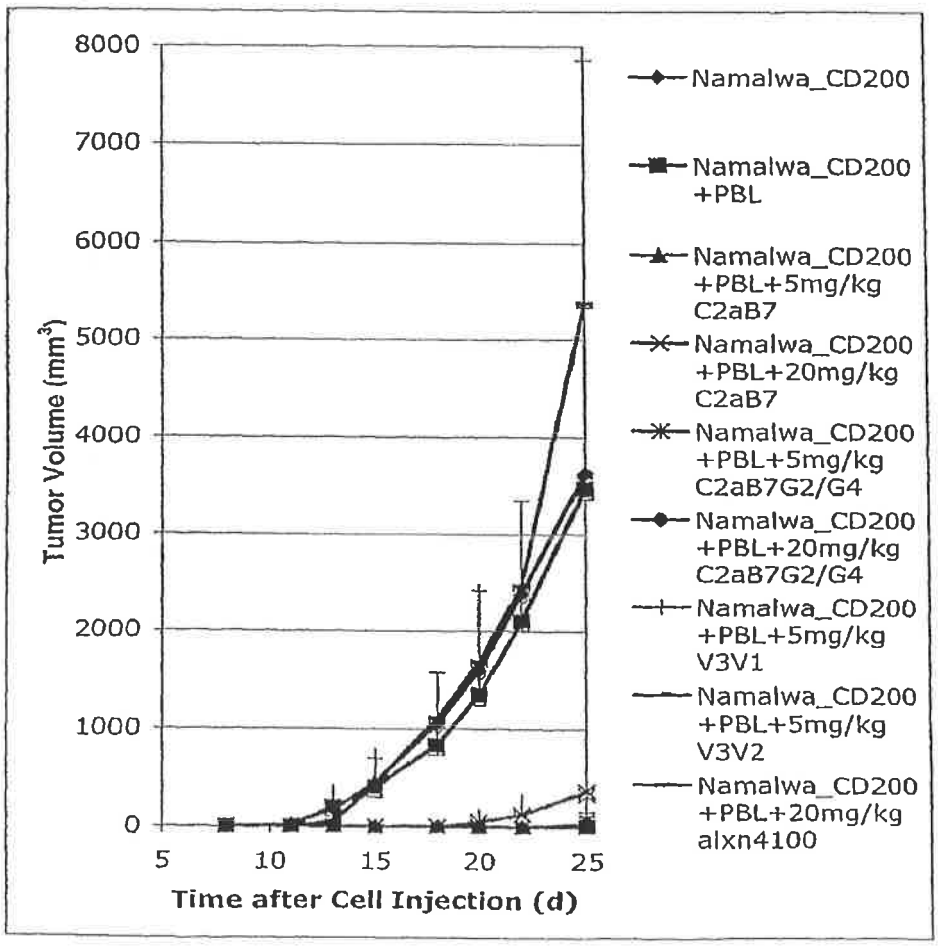


FIGURE 20

FACS analysis of CD200 expression on B-CLL cells in comparison to normal B cells.

CLL sample		Healthy donor	
Donor ID	B-CLL CD200 (GMFI)	Normal B CD200 (GMFI)	Ratio(CLL/normal B)
RC011731	93	58	1.6
RF020934	659	185	3.6
JA073031	334	64	5.2
GR011846	156	64	2.4
BB101735	420	95	4.4
DM6988172	290	97	2.9
MR8074020	403	97	4.2
CB8267677	300	97	3.1
GB1325248	178	77(7)	2.3
VN7029373	154	77(7)	2.0
DG8942820	146	77(7)	1.9
MM8451869	237	77(7)	3.1
JR4539931	215	77(7)	2.8
HS6787771	305	77(7)	4.0
VB040439	123	41	3.0
			MEAN= 3.1
			STDEV= 1.0

FIGURE 21

Tumor type	Cell line	CD200 staining
Melanoma	SK-MEL2	-
	SK-MEL28	++
	SK-MEL1	+
	SK-MEL5	+/-
	SK-MEL24	+++
Ovarian	OVCAR3	++
	SKOV3	+/-
Renal	CAKI-1	+
	ACHN	-
	SN12C	+
Neuroblastoma	IMR-32	+++
	SK-N-SH	++
Breast cancer	MDA-MB-435	+/-
	MCF7	-
	MDA-MB-231	-

FIGURE 22

RTQ-PCR of primary ovarian cancer samples.

RT-QPCR: CD200 on Ovarian Cancer samples

Number	Sample	norm/#51	sd/#51
51	PBL	1.00	0.03
124	normal ovary	5.82	0.16
125	normal ovary	19.45	1.33
127	ov. adenocarc, serous	10.93	0.47
128	ov. adenocarc, serous met	10.08	0.60
134	ov. adenocarc, serous met	21.24	0.69
129	ov. adenocarc, papill. serous	13.33	1.26
130	ov. adenocarc, papill. serous	8.71	0.42
126	ov. adenocarc, endometroid	11.02	0.54
131	ov. adenocarc, endometroid	1.38	0.20
135	ov. adenocarc, endometroid	2.42	0.02
132	ov. adenocarc, mucinous	1.61	0.00
133	ov. adenocarc, mucinous	2.46	0.23
136	ov. adenocarc, clear cell	6.51	1.14
137	ov. adenocarc, clear cell	0.70	0.04

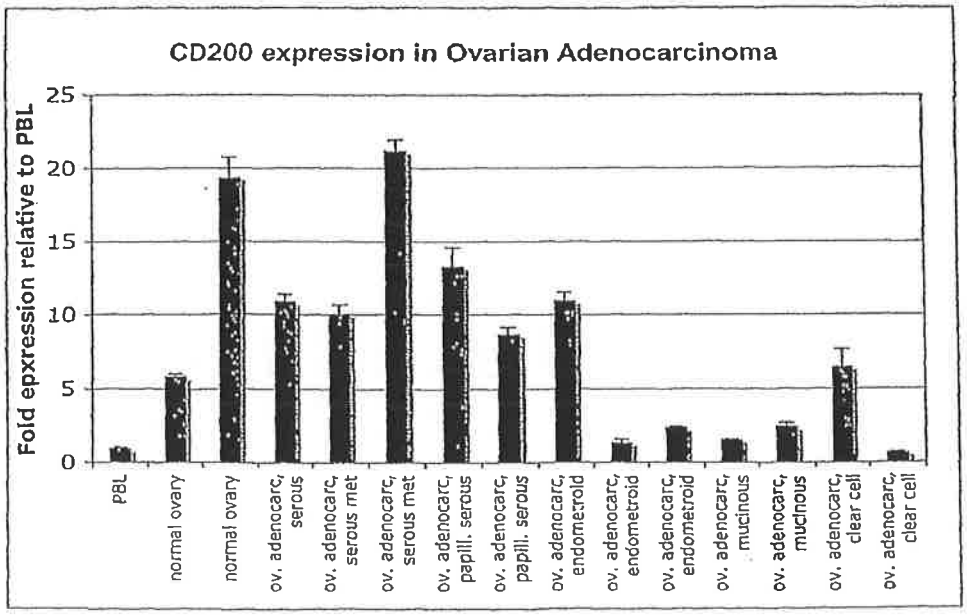


FIGURE 23

RT-QPCR: CD200 on Melanoma samples

Number	Sample	norm/#51	sd/#51	
51	PBL	1.00	0.28	
139	norm jejunum -1	2.60	0.15	
138	jejunum met -1	8.39	0.24	
147	norm jejunum -2	1.37	0.81	
146	jejunum met -2	14.46	3.38	
143	norm small intestine -1	3.57	1.21	
142	small intestine met -1	4.61	0.55	
141	norm lymph node -1	8.52	1.00	
140	lymph node met -1	6.22	0.53	
151	norm lymph node -2	4.80	1.40	
150	lymph node met -2	12.94	0.51	
155	lymph node met -3	0.69	0.21	
156	lymph node met -4	2.72	1.72	
145	norm lung -1	14.87	1.14	
144	lung met -1	8.93	0.83	
149	norm lung -2	4.25	0.64	
148	lung met -2	3.65	1.04	
111	norm skin -1	1.55	0.25	
152	melanoma metastatic, skin -2	0.05	0.06	
158	melanoma metastatic, skin -3	2.22	0.61	
148	norm brain -1	10.49	1.69	values from 9/10/04 plate
159	malign. melanoma, brain met -2	22.92	3.20	
153	malign. melanoma, lung met	18S low		
154	malign. melanoma, LN met	18S low		
157	malign. melanoma, LN met	18S low		
160	malign. melanoma, skin	18S low		
160-No RT	malign. melanoma, skin	0.00	0.00	

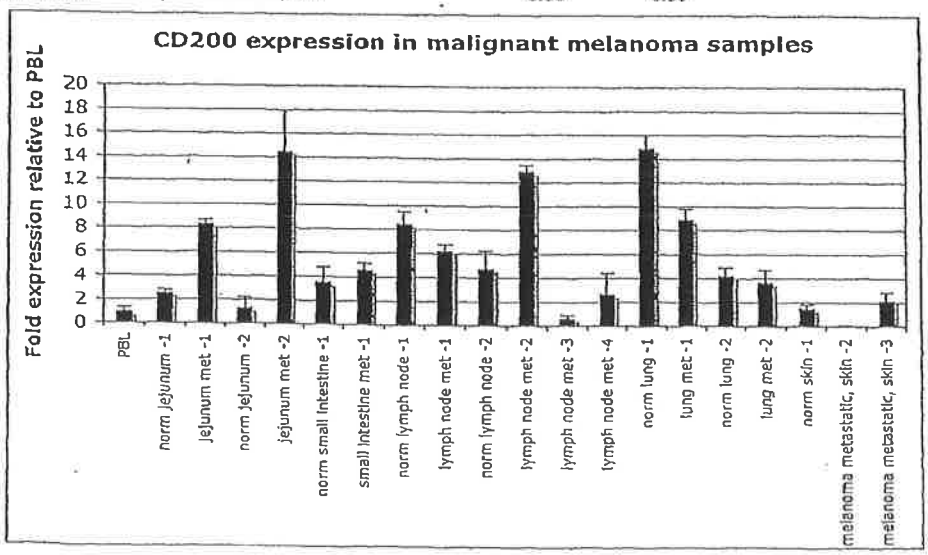


FIGURE 24

Immunohistochemistry staining of melanoma patient samples.

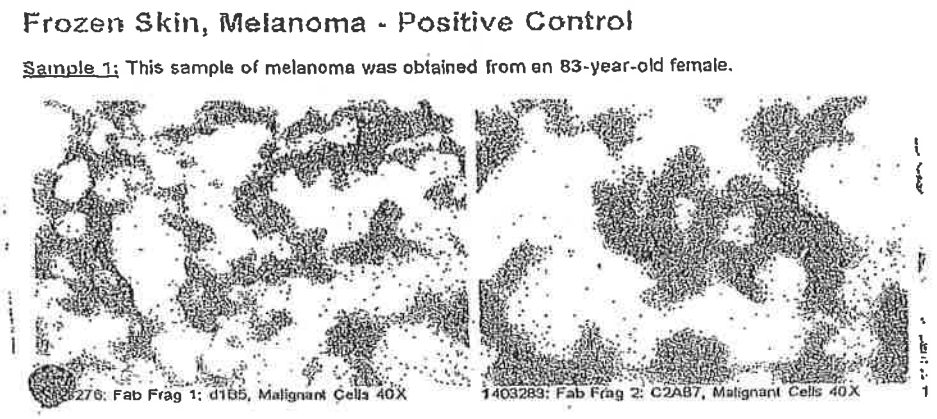
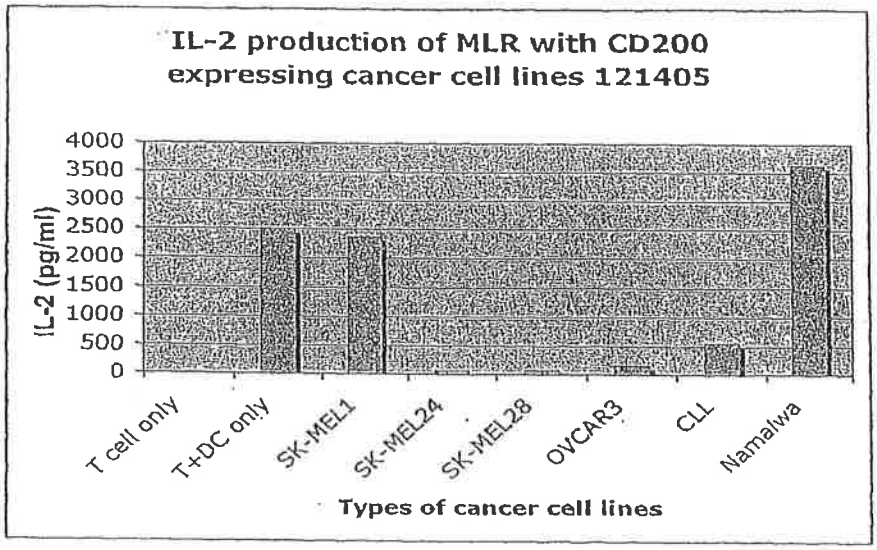


FIGURE 25

IL-2 production in MLR with cancer cell lines.

A. In the absence of antibody



B. In the presence of antibody

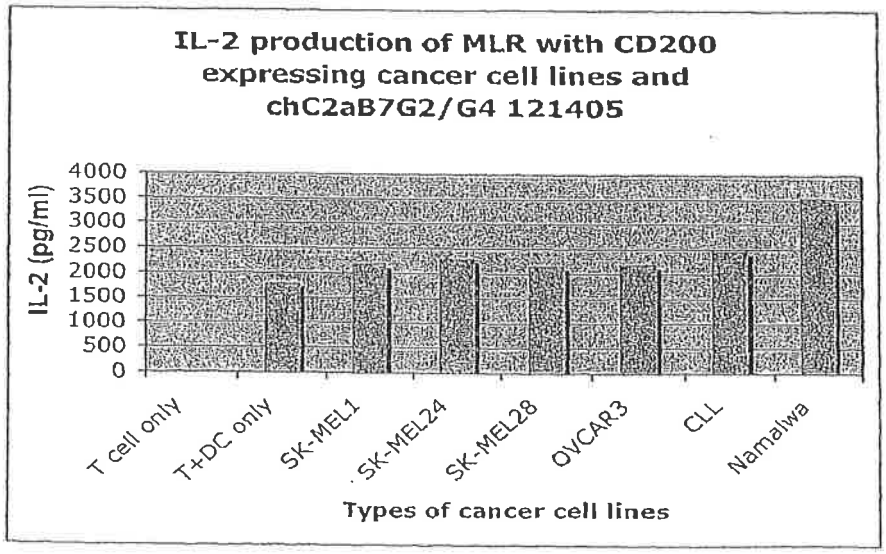


FIGURE 26

Tumor volumes in the Namalwa/PBL model (no CD200 expression) comparing anti-CD200 G1 or G2G4 construct treated groups.

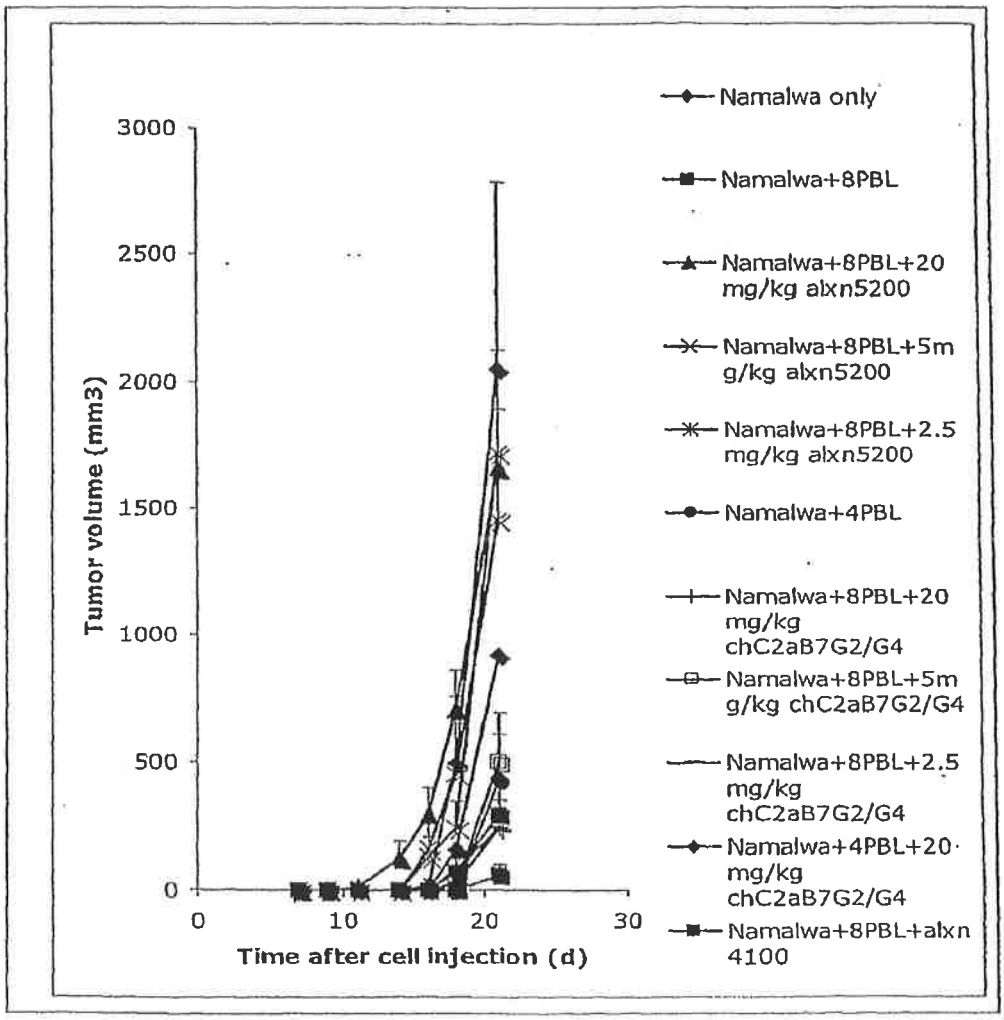
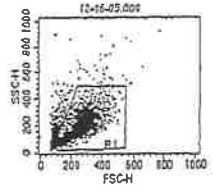
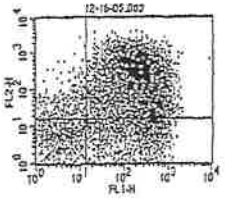


FIGURE 27 Cell surface expression of CD200 on human CD3+ cells following activation with mOKT3.

anti-CD3 activated T cells



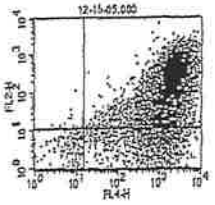
CD25 FITC/CD200 PE



File: 12-16-05.003
Gated Events: 9225
Total Events: 10000
Quad Location: 14, 15

Quad	Events	% Gated	% Total
UL	308	3.33	3.08
UR	6902	74.82	69.02
LL	603	6.54	6.03
LR	1414	15.33	14.14

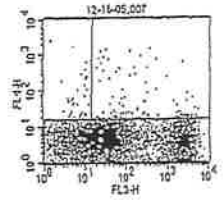
CD5 APC/CD200 PE



File: 12-16-05.003
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Total Events: 10000
Quad Location: 15, 11

Quad	Events	% Gated	% Total
UL	27	0.29	0.27
UR	7611	82.50	76.11
LL	158	1.71	1.58
LR	1429	15.49	14.29

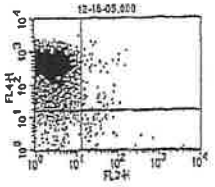
CD8 PerCPCy5.5/Isotype APC



File: 12-16-05.007
Gated Events: 8975
Total Events: 10000
Quad Location: 14, 15

Quad	Events	% Gated	% Total
UL	37	0.41	0.37
UR	135	1.50	1.35
LL	1850	20.01	18.50
LR	6953	77.47	69.53

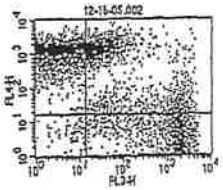
Isotype PerCPCy5.5/CD4 APC



File: 12-16-05.008
Gated Events: 9057
Total Events: 10000
Quad Location: 14, 15

Quad	Events	% Gated	% Total
UL	8897	98.03	88.97
UR	67	0.74	0.67
LL	219	2.42	2.19
LR	74	0.82	0.74

CD8 PerCPCy5.5/CD4 APC

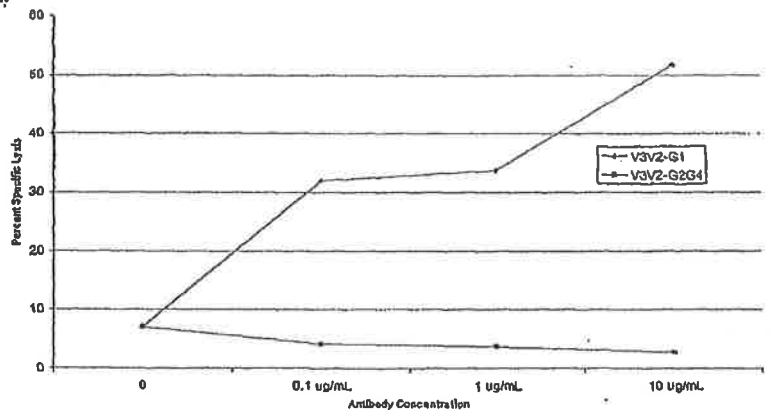


File: 12-16-05.002
Gated Events: 9057
Total Events: 10000
Quad Location: 14, 15

Quad	Events	% Gated	% Total
UL	3968	43.81	39.68
UR	2155	23.79	21.55
LL	87	0.96	0.87
LR	2847	31.43	28.47

FIGURE 28 Human T cells activated through T cell receptor signaling serve as sensitive targets for anti-CD200 mediated ADCC.

A.



B.

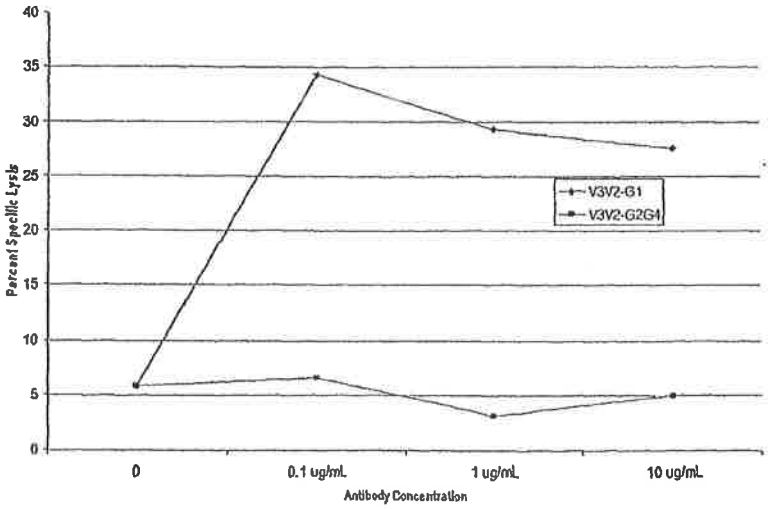


FIGURE 29

			CD200 Expression on CD38+ Bright Cells (Plasma cells)		
Sample	Status	Light Chain Isotype	Threshold Set Through Isotype Control (Expressed as %)	Threshold Set Through Isotype Control (Expressed as Geometric Mean Intensity)	Current Clinical Treatment
1	Normal	Polyclonal	48	6575	NA
2	Normal	Polyclonal	48	19411	NA
3	Normal	Polyclonal	33	87084	NA
4	M Myeloma	Kappa	12	4056	Melphalan, Velcade
5	M Myeloma	Kappa	12	3091	ATO, Velcade, Aranesp, Zometa
6	M Myeloma	Negative	14	2162	Coumadin, Aranesp, DVD (Dox, Vin, Dex)
7	M Myeloma	Polyclonal	37	3419	None
8	M Myeloma	Kappa	71	4024	Zometa, Prednisone
9	M Myeloma	Kappa	76	1506	Aranesp, Zometa
10	M Myeloma	Kappa	82	9056	HTN, PCTA
11	M Myeloma	Kappa	85	5388	Prednisone, Zometa
12	M Myeloma	Kappa	89	23269	Zometa, Coumadin
13	M Myeloma	Lambda	95	1535	Zometa, IVIG, Biaxin, Medrol