Figure 57a – Leu 63→C β chain

atgaacgctggtgtcactcagaccccaaaattccaggtcctgaagacaggacaga
gcatgacactgcagtgtgcccaggatatgaaccatgaatacatgtcctggtatcg
acaagacccaggcatggggctgaggctgattcattactcagttggtgctggtatc
actgaccaaggagaagtccccaatggctacaatgtctccagatcaaccacagagg
atttcccgctcaggctgctgtcggctgctccctcccagacatctgtgtacttctg
tgccagcaggccgggactagcgggagggcgaccagagcagtacttcgggccgggc
accaggctcacggtcacagaggacctgaaaaacgtgttcccacccgaggtcgctg
tgtttgagccatcagaagcagagatctcccacacccaaaaggccacactggtgtg
cctggccacaggcttctaccccgaccacgtggagctgagctggtgggtgaatggg
aaggaggtgcacagtggggtcagcacagacccgcagcccc[redacted]aaggagcagcccg
ccctcaatgactccagatacgctctgagcagccgcctgagggtctcggccacctt
ctggcaggacccccgcaaccacttccgctgtcaagtccagttctacgggctctcg
gagaatgacgagtggacccaggatagggccaaacccgtcacccagatcgtcagcg
ccgaggcctggggtagagcagactaa

Figure 57b Leu 63→C β chain

M
N_1AGVTQTPKF QVLKTGQSMT LQCAQDMNHE YMSWYRQDPG MGLRLIHYSV
GAGITDQGEV PNGYNVSRST TEDFPLRLLS AAPSQTSVYF CASRPGLAGG
RPEQYFGPGT RLTVTEDLKN VFPPEVAVFE PSEAEISHTQ KATLVCLATG
FYPDHVELSW WVNGKEVHSG VSTDPQPCKE QPALNDSRYA LSSRLRVSAT
FWQDPRNHFR CQVQFYGLSE NDEWTQDRAK PVTQIVSAEA WGRAD*

Figure 58a – Glu 15→C β chain

atgaacgctggtgtcactcagaccccaaaattccaggtcctgaagacaggacaga
gcatgacactgcagtgtgcccaggatatgaaccatgaatacatgtcctggtatcg
acaagacccaggcatggggctgaggctgattcattactcagttggtgctggtatc
actgaccaaggagaagtccccaatggctacaatgtctccagatcaaccacagagg
atttcccgctcaggctgctgtcggctgctccctcccagacatctgtgtacttctg
tgccagcaggccgggactagcgggagggcgaccagagcagtacttcgggccgggc
accaggctcacggtcacagaggacctgaaaaacgtgttcccacccgaggtcgctg
tgttt[redacted]ccatcagaagcagagatctcccacacccaaaaggccacactggtgtg
cctggccacaggcttctaccccgaccacgtggagctgagctggtgggtgaatggg
aaggaggtgcacagtggggtcagcacagacccgcagcccctcaaggagcagcccg
ccctcaatgactccagatacgctctgagcagccgcctgagggtctcggccacctt
ctggcaggacccccgcaaccacttccgctgtcaagtccagttctacgggctctcg
gagaatgacgagtggacccaggatagggccaaacccgtcacccagatcgtcagcg
ccgaggcctggggtagagcagactaa

Figure 58b Glu 15→C β chain

M
N_1AGVTQTPKF QVLKTGQSMT LQCAQDMNHE YMSWYRQDPG MGLRLIHYSV
GAGITDQGEV PNGYNVSRST TEDFPLRLLS AAPSQTSVYF CASRPGLAGG
RPEQYFGPGT RLTVTEDLKN VFPPEVAVFC PSEAEISHTQ KATLVCLATG
FYPDHVELSW WVNGKEVHSG VSTDPQPLKE QPALNDSRYA LSSRLRVSAT
FWQDPRNHFR CQVQFYGLSE NDEWTQDRAK PVTQIVSAEA WGRAD*