Figure 1

SEQ ID NO: 8 polynucleotide sequence encoding anti-toxin A antibody 922.g1 VK (gL1)

GACCCTGTGA TGACCCAGAG TCCGAGCACT CTTTCTGCCT CCGTGGGAGA CCGCGTGACC
ATTACATGTC AGGCTTCACA AAGTATCTCC AATGCTCTGG CCTGGTATCA GCAGAAACCC
GGCAAAGCCC CTAAGCTGCT CATCTACTCT GCATCAAGCC TGGCTAGCGG CGTGCCAAGC
CGATTCAAGG GGAGCGGTTC TGGCACTGAG TTTACGCTGA CCATCAGTAG CTTGCAGCCT
GACGATTTTG CAACCTATTA CTGCCAGTAC ACACACTACT CCCATACATC TAAAAACCCA
TTCGGAGGGG GTACTAAGGT CGAAATAAAG

SEQ ID NO: 10 polynucleotide sequence encoding anti-toxin A antibody 922.g1 VH (gH1)

GAAGTGCAAT TGGTGGAAAG TGGCGGAGGA CTGGTGCAAC CCGGGGGTAG TCTGCGACTG
AGCTGTGCTG CCTCCGGCTT TACCATTAGC TCCTACTATA TGAGCTGGGT TCGACAGGCC
CCTGGAAAAG GACTCGAATG GATCGGCATC ATATCTTCCG GTGGGCATTT CACCTGGTAC
GCAAACTGGG CTAAGGGGAG ATTCACGATT AGCAGCGACT CCACAACCGT GTACCTGCAA
ATGAACAGCC TGAGGGATGA GGACACTGCC ACATATTTCT GCGCACGCGC TTACGTGAGC
GGAAGCTCAT TTAATGGCTA TGCACTGTGG GGGCAAGGAA CACTCGTGAC TGTCTCG

SEQ ID NO: 18 polynucleotide sequence encoding anti-toxin A antibody CA923.g1 gL1

GACGTCGTGATGACTCAGAGCCCATCTAGTCTGAGCGCTAGCGTCGGAGACCGAGTCACAATTACC
TGTCAAGCCTCCCAGAGCATCTCCAACTACCTGGCCTGGTACCAACAGAAACCTGGCAAGGTGCCC
AAGCTGCTGATCTATAGTGCTTCCACACTCGCAAGCGGCGTTCCGTCACGCTTTAAGGGATCTGGC
TCTGGCACTCAGTTCACCTTGACGATCTCAAGCCTGCAGCCAGAAGATGTGGCCACCTATTACTGC
CAGTATTCCCACTACGGGACTGGGGTGTTCGGTGCCTTTGGAGGTGGGACCAAAGTGGAGATAAAG

Figure 2

SEQ ID NO: 20 polynucleotide sequence encoding anti-toxin A antibody CA923.g1 gH1

GAAGTTCAACTTGTGGAATCTGGAGGCGGGCTCGTGCAGCCTGGTGGAAGCCTTAGACTGAGCTGC
GCTGCATCCGCATTTTCCCTGTCCAACTACTACATGAGCTGGGTGCGACAAGCACCAGGCAAGGGA
CTGGAATGGATTGGCATCATAAGCTCCGGTTCCAATGCCCTGAAATGGTACGCATCATGGCCGAAA
GGCCGCTTTACCATAAGCAAGGACTCCACCACCGTCTATCTGCAGATGAACTCATTGCGTGCCGAG
GACACTGCAACGTACTTCTGTGCTCGCAACTACGTGGGAAGCGGATCTTATTATGGCATGGATCTG
TGGGGACAAGGTACACTCGTGACCGTCTCG

SEQ ID NO: 28 polynucleotide sequence encoding anti-toxin A antibody CA993.g1 gL1

GATGTCGTGA TGACTCAGTC CCCCTCTACA TTGAGTGCCT CTGTCGGTGA TCGAGTTACC
ATCACCTGTC AAGCAAGCCA GAGCATCAGC TCCTACTTCT CTTGGTACCA GCAAAAGCCG
GGAAAAGCCC CTCAACTGCT GATTTATGGG GCCTCAACAC TGGCTTCTGG CGTGCCATCA
AGATTCAAGG GATCTGGCTC CGGCACTGAG CTTACACTGA CCATTAGCTC CCTGCAACCT
GACGATTTTG CTACCTACTA CTGCCAGTGC ACCGACTATA GTGGGATATA TTTCGGCGGA
TTTGGGGGAG GGACGAAAGT GGAAATCAAG

SEQ ID NO: 30 polynucleotide sequence encoding anti-toxin A antibody CA993.g1 gH1

GAAGTTCAGC TGGTCGAGAG CGGAGGCGGA CTGGTGCAAC CTGGTGGTAG CCTGAAACTC
TCTTGTACTG CCTCCGGGTT TTCCCTGAGC TCTTACTATA TGTCATGGGT GAGACAGGCT
CCCGGGAAAG GATTGGAATG GATCGGGATT ATCTCCTCCG GCTCTTCCAC CACTTTCACA
TGGTACGCCT CATGGGCAAA GGGGAGGTTT ACCATAAGCA AGACAAGCAC GACCGTGTAT
CTTCAGATGA ACTCCCTGAA GACGGAGGAT ACTGCCACCT ACTTTTGCGC TCGGGCCTAT
GTGGGCTCAA GCTCTTACTA TGGCTTCGAC CCATGGGGAC AGGGCACACT TGTGACCGTC
TCG

Figure 3

SEQ ID NO: 38 polynucleotide sequence encoding anti-toxin A antibody 995.g1 VL region

GACGTCGTGA TGACACAGAG CCCTTCAACA CTGTCTGCAA GCGTGGGCGA TAGGGTCACC
ATAACGTGCC AGGCCTCTCA ATCCATCAAC AACTATTTTA GCTGGTACCA GCAGAAGCCA
GGCAAGGCTC CGAAACTTCT GATCTACGGA GCTGCCAACC TGGCAAGTGG CGTGCCATCA
CGGTTCAAGG GATCCGGGAG CGGTACTGAG TATACCCTGA CCATTTCATC TCTCCAACCC
GACGATTTCG CCACCTACTC CTGCCAGAAT AATTACGGCG TGCACATCTA TGGAGCTGCC
TTTGGCGGTG GGACAAAAGT GGAAATTAAG

SEQ ID NO: 40 polynucleotide sequence encoding anti-toxin A antibody 995.g1 VH region

GAAGTTCAGC TGGTCGAGAG TGGGGGAGGG CTTGTGCAAC CTGGTGGCTC CCTCCGTCTG
AGCTGTACTG CTTCTGGATT CTCACTGAGC AATTACGACA TGATCTGGGT GCGACAGGCA
CCCGGCAAAG GACTGGAGTA CATTGGCTTC ATCAACACCG GGGGTATAAC GTACTATGCC
TCATGGGCTA AGGGGCGCTT TACAATTAGT AGGGATTCCT CTACCGTGTA CCTGCAGATG
AACTCACTGA GAGCCGAGGA CACTGCCACA TATTTCTGCG CTCGGGTGGA TGACTATATC
GGGGCCTGGG GCGCCGGATT GTGGGGCCAA GGAACACTGG TCACCGTCTC G

SEQ ID NO: 48 polynucleotide sequence encoding anti-toxin A antibody 997.g1 VL region

GCACTCGTGATGACACAGAGCCCGAGTAGCTTTAGTGCTTCAACCGGTGATAGGGTCACTATTACT
TGCCAAGCCTCTCAGAGTATATCTAGCTATCTGAGCTGGTACCAGCAAAAGCCCGGGAAGGCTCCT
AAACTGCTGATCTACCGGGCTTCCACATTGGCCTCCGGCGTTCCCTCACGCTTTAGCGGCTCCGGA
TCCGGAACCGAGTACACCCTGACTATCTCTTGCCTGCAATCTGAGGACTTCGCAACCTACTATTGT
CTGGGCGTCTACGGATATAGCAACGATGACGGGATCGCCTTCGGCGGCGGTACCAAAGTGGAAATT
AAG

Figure 4

SEQ ID NO: 50 polynucleotide sequence encoding anti-toxin A antibody 997.g1 VH region

GAGGTGCAACTTGTGGAAAGCGGGGGAGGACTGGTGCAGCCTGGGGGCTCATTGAGACTGAGCTGC
ACCGTTTCTGGTATTGACCTGAGCTCCCATCATATGTGCTGGGTGCGCCAGGCACCCGGAAAAGGA
CTGGAATACATCGGCGTCATATACCACTTTGGCTCTACATACTATGCCAACTGGGCAACTGGGCGA
TTCACAATTAGCAAGGACTCAACTACCGTTTACCTGCAAATGAATAGCCTGAGGGCTGAGGATACT
GCCACCTATTTCTGTGCCCGGGCTTCAATCGCCGGCTATTCTGCCTTTGATCCATGGGGGCAAGGA
ACACTCGTGACCGTCTCG

SEQ ID NO: 58 polynucleotide sequence encoding anti-toxin A antibody 1000.g1 VL region

GAAATCGTGA TGACGCAGTC ACCAAGCACA CTGAGCGCTT CTGTGGGAGA TCGGGTCACA
ATAACCTGTC AGGCCTCCCA GAGCATCTAC TCTTATCTGG CATGGTACCA GCAGAAGCCA
GGGAAAGCTC CCAAGCTGCT GATTTATGAC GCCAGCACTT TGGCTTCCGG TGTTCCTAGT
AGGTTCAAAG GCTCCGGAAG CGGTACCGAG TTTACCCTGA CCATCTCATC TCTGCAACCC
GATGACTTTG CCACATACTA TTGCCAGGGG AATGCCTACA CTTCCAACTC ACACGACAAC
GCATTCGGGG GAGGCACCAA AGTCGAAATT AAG

SEQ ID NO: 60 polynucleotide sequence encoding anti-toxin A antibody 1000.g1 VH region

GAAGTTCAGC TGGTCGAGAG CGGAGGGGGT TTGATTCAGC CCGGTGGCTC ACTTAGATTG
AGCTGCACCG TGTCCGGAAT CGATCTGTCA TCTGATGCCG TGGGCTGGGT GCGACAGGCA
CCTGGGAAAG GACTGGAGTA TATAGGGATC ATCGCCACCT TCGACTCCAC ATACTACGCT
AGCTGGGCAA AAGGGCGCTT TACGATTAGC AAGGCCTCCT CTACTACCGT GTACCTCCAA
ATGAACTCAC TGAGGGCCGA GGACACTGCC ACTTATTTCT GTGCTCGGAC CGGTAGCTGG
TACTACATCT CTGGCTGGGG CTCCTACTAT TATGGCATGG ACCTGTGGGG ACAGGGGACA
CTCGTGACCG TCTCG

Figure 5

SEQ ID NO: 68 polynucleotide sequence encoding anti-toxin B antibody 926.g1 VL region

GATACCGTGCTGACCCAGAGCCCTGCTACATTGTCACTGAGCCCCGGGGAGAGGGCCACATTGAGC
TGCCGGGCTTCAAAATCCGTGTCCACCCTCATGCACTGGTTTCAGCAAAAGCCCGGGCAGGCCCCA
AAACTGCTGATCTACCTCGCATCTAACCTTGAATCTGGCGTGCCGGCCCGCTTTAGTGGCTCCGGA
AGCGGAACCGACTTCACACTGACGATTAGCTCCCTGGAGCCTGAGGATTTCGCCGTGTACTATTGC
CAGCAAACTTGGAATGACCCTTGGACTTTCGGGGGCGGTACTAAGGTCGAAATAAAG

SEQ ID NO: 70 polynucleotide sequence encoding anti-toxin B antibody 926.g1 VH region

GAGGTGGAACTGCTCGAATCTGGTGGTGGGCTGGTGCAGCCCGGTGGATCTCTGAGATTGTCATGC
GAGGCATCCGGCTTTACCTTTTCCAACTACGGAATGGCCTGGGTGAGACAGGCCCCAACGAAGGGG
CTCGAATGGGTTACAAGCATCAGCTCTTCTGGGGGATCTACTTACTATCGCGATAGCGTCAAAGGC
CGGTTTACCATTAGCCGAGATAATGCCAAATCAAGCCTGTATCTGCAAATGAACAGCCTGAGGGCT
GAGGACACCGCCACATACTATTGTACAACCGTGATAAGGGGCTACGTGATGGACGCATGGGGACAG
GGGACATTGGTTACCGTCTCG

SEQ ID NO: 78 polynucleotide sequence encoding anti-toxin B antibody 927.g2 VL region

GACACACAGA TGACCCAGAG CCCATCCACT TTGTCTGCAT CCGTGGGCGA CCGAGTGACA
ATCACCTGTA GAGCAAGCGG TTCCGTGAGC ACACTGATGC ATTGGTACCA GCAGAAGCCT
GGGAAGGCTC CCAAGCTGCT GATCTACAAA GCCAGCAACC TTGCCTCCGG CGTTCCAAGC
CGGTTTAGCG GTTCCGGATC TGGAACCGAG TTCACCCTGA CCATATCAAG CCTGCAACCC
GACGACTTCG CCACCTACTA TTGCCACCAG AGCTGGAATA GCGACACGTT CGGGCAAGGC
ACAAGGCTGG AAATCAAA

SEQ ID NO: 80 polynucleotide sequence encoding anti-toxin B antibody 927.g2 VH region

GAGGTGCAAC TTGTGGAAAG CGGAGGGGGC GTGGTCCAAC CCGGAAGAAG TCTCCGTCTT
TCTTGCGCCG CAAGTGGCTT CACCTTTTCC AACTACGGAA TGGCCTGGGT TCGACAAGCT
CCTGGGAAAG GATTGGAGTG GGTGGCCACT ATCAACTATG ACGGACGCAC GACACACTAC
CGAGACTCTG TTAAGGGGCG CTTTACGATT TCCCGCGACA ATAGCAAGAG CACCCTCTAC
CTGCAAATGA ATAGCCTCCG GGCCGAGGAT ACTGCTGTGT ACTATTGTAC CTCCATCTCA
CGGAGCCACT ACTTCGATTG CTGGGGACAA GGCACACTCG TGACTGTCTCG

Figure 6

SEQ ID NO: 88 polynucleotide sequence encoding anti-toxin B antibody 1099.g2 VL region

GACGTCCAGC TCACTCAATC TCCCTCCTTT CTGTCTGCTT CTGTGGGCGA TCGCGTGACA
ATAACCTGCA AGGCCTCCAA ATCAATTAGC AACCATCTGG CATGGTATCA GGAGAAGCCT
GGCAAAGCCA ATAAGCTGCT GATCCACTCC GGCTCAACTC TGCAATCCGG TACCCCAAGC
CGATTTAGCG GATCTGGGAG CGGAACCGAG TTCACACTTA CCATTAGCTC CCTGCAACCG
GAGGACTTCG CCACCTATTA CTGCCAGCAA TACGACGAAT ACCCCTATAC GTTCGGCCAA
GGGACAAGAT TGGAAATCAA GCGTACG

SEQ ID NO: 90 polynucleotide sequence encoding anti-toxin B antibody 1099.g2 VH region

GAAGTTCAGC TGCAGGAATC TGGACCTGGC TTGGTGAAAC CAAGCGAGAC ACTTAGTCTC
ACTTGCACCG TTTCCGGCTT CTCCCTTCAA TCCTACACGA TCTCTTGGGT GCGGCAACCA
CCCGGGAAAG GACTGGAATG GATCGCAGCC ATTAGCGGGG GAGGGAGCAC CTATTACAAC
TTGCCTCTCA AGAGCCGCGT GACCATATCC CGTGACACAA GCAAGAGCCA GGTTTCCCTG
AAGCTGAGCT CCGTGACTGC TGCCGATACG GCTGTTTACT ATTGCACCCG ACCTCGCTGG
TATCCCCGTT CCTATTTCGA CTACTGGGGA AGAGGCACAC TGGTTACCGT CTCG

SEQ ID NO: 98 polynucleotide sequence encoding anti-toxin B antibody 1102.g4 VL region

AACATCGTGC TGACACAGTC TCCTGCAACC CTTTCACTGT CTCCAGGTGA ACGAGCAACC
CTGAGTTGTA GAGCCAGTCA GAGGATCTCC ACGAGCATTC ACTGGTATCA GCAAAAGCCT
GGGCAAGCTC CCAGACTCTT GATCAAGTAC GCCTCTCAGA GCATAAGTGG CATTCCAGCT
AGGTTTAGCG GCTCAGGCTC AGGAACAGAC TTCACTCTGA CCATCAGCTC CCTGGAACCG
GAGGACTTTG CCGTCTATTA CTGCCAGCAA TCCTACTCCA GTCTGTACAC CTTCGGGCAG
GGTACTAAAC TGGAGATAAA G

Figure 7

SEQ ID NO: 100 polynucleotide sequence encoding anti-toxin B antibody 1102.g4 VH region

GAAGTGCAGC TGGTCGAATC CGGGGGAGGT TTGGTGCAAC CAGGTGGCTC ACTGAGACTG
AGCTGTGCCG TTTCCGGCTT TACGTTCTCA GACAGTTATA TGGCCTGGGT GCGTCAAGCA
CCTGGAAAAG GGCTGGAGTG GATTGCCAGT ATCAGCTATG GTGGGACCAT AATCCAGTAC
GGCGATAGCG TCAAGGGCAG GTTTACTATC TCCAGGGACA ACGCCAAGTC AAGCCTTTAC
CTGCAGATGA ATTCTCTCCG CGCAGAGGAT ACCGCTGTGT ATTACTGCGC TAGACGGCAG
GGAACCTACG CTCGATACCT GGACTTCTGG GGTCAGGGAA CACTCGTTAC AGTCTCG

SEQ ID NO: 108 polynucleotide sequence encoding anti-toxin B antibody 1114.g2 VL region

GCGACGCAAA TGACTCAGTC GCCCTCATCG CTTAGCGCGT CCGTCGGAGA TAGAGTGACG
ATCACCTGCC GCGCATCAGA GTCGGTGTCC ACACTCCTCC ACTGGTATCA GCAGAAACCG
GGGAAGGCAC CAAAACTCTT GATCTACAAA GCCAGCAACC TTGCGTCCGG TGTCCCGTCA
AGGTTCTCCG GGAGCGGTTC GGGGACAGAC TTTACTTTGA CCATTTCGTC GCTTCAGCCG
GAGGACTTCG CCACCTATTA CTGTCATCAG TCATGGAACT CACCTCCCAC ATTTGGCCAG
GGAACGAAAC TCGAAATCAA G

SEQ ID NO: 110 polynucleotide sequence encoding anti-toxin B antibody 1114.g2 VH region

GAAGTACAAC TCGTAGAGTC AGGGGGTGGG CTGGTCCAAC CTGGCGGCTC CCTTCGGCTT
TCGTGTGCCG CCTCGGGATT CACGTTTAGC AATTACGGTA TGGCCTGGGT GAGGCAGGCA
CCAGGGAAGG GTCTTGAGTG GGTAGCGATC ATCAACTATG ATGCAAGCAC CACCCACTAC
AGGGATAGCG TCAAGGGACG CTTTACTATC AGCCGGGATA ATGCGAAATC CTCGCTCTAT
CTGCAGATGA ACTCCCTCAG AGCCGAGGAC ACCGCAGTGT ACTATTGCAC ACGATACGGA
CGCTCGCACT ATTTCGACTA TTGGGGACAG GGGACGCTCG TAACTGTCTC G

Figure 8

SEQ ID NO: 118 polynucleotide sequence encoding anti-toxin B antibody 1114.g8 VL region

GACACGGTCC TGACTCAGTC GCCCTCATCG CTTAGCGCGT CCGTCGGAGA TAGAGTGACG
ATCACCTGCC GCGCATCAGA GTCGGTGTCC ACACTCCTCC ACTGGTATCA GCAGAAACCG
GGGAAGGCAC CAAAACTCTT GATCTACAAA GCCAGCAACC TTGCGTCCGG TGTCCCGTCA
AGGTTCTCCG GGAGCGGTTC GGGGACAGAC TTTACTTTGA CCATTTCGTC GCTTCAGCCG
GAGGACTTCG CCACCTATTA CTGTCATCAG TCATGGAACT CACCTCCCAC ATTTGGCCAG
GGAACGAAAC TCGAAATCAA G

SEQ ID NO: 120 polynucleotide sequence encoding anti-toxin B antibody 1114.g8 VH region

GAAGTACAAC TCGTAGAGTC AGGGGGTGGG CTGGTCCAAC CTGGCGGCTC CCTTCGGCTT
TCGTGTGCCG CCTCGGGATT CACGTTTAGC AATTACGGTA TGGCCTGGGT GAGGCAGGCA
CCAGGGAAGG GTCTTGAGTG GGTAGCGATC ATCAACTATG ATGCAAGCAC CACCCACTAC
AGGGATAGCG TCAAGGGACG CTTTACTATC AGCCGGGATA ATGCGAAATC CTCGCTCTAT
CTGCAGATGA ACTCCCTCAG AGCCGAGGAC ACCGCAGTGT ACTATTGCAC ACGATACGGA
CGCTCGCACT ATTTCGACTA TTGGGGACAG GGGACGCTCG TAACTGTCTC G

SEQ ID NO: 128 polynucleotide sequence encoding anti-toxin B antibody 1125.g2 VL region

GATATACAAA TGACTCAGAG CCCTAGCTCA CTGAGCGCTT CTGTGGGCGA TCGTGTGACA
ATCACTTGCA AAGCAAGCCA GAACATCTAT ATGTACCTGA ATTGGTACCA GCAAAAACCG
GGAAAAGCTC CCAAGCGCCT GATTTACAAC ACCAATAAGC TGCATACCGG CGTGCCAAGC
CGTTTTAGCG GATCTGGCTC TGGAACCGAA TATACACTGA CCATAAGCTC CCTGCAACCG
GAAGACTTTG CAACTTACTA TTGCCTCCAG CACAAATCCT TCCCCTATAC GTTCGGACAA
GGGACCAAAC TGGAAATCAA A

SEQ ID NO: 130 polynucleotide sequence encoding anti-toxin B antibody 1125.g2 VH region

GAAGTGCAGC TGGTCGAAAG CGGCGGAGGA TTGGTGCAAC CTGGTGGCTC TCTTCGCCTG
TCTTGCGCTG CAAGCGGCTT TACGTTCCGC GATAGCTTTA TGGCTTGGGT GCGACAAGCT
CCTGGGAAAG GGCTGGAATG GGTCGCTAGC ATAAGCTACG AAGGCGACAA GACTTACTAT
GGGGACTCTG TGAAAGGCCG ATTCACCATT AGCCGAGACA ACGCAAAGAA CTCCCTGTAC
CTGCAGATGA ACTCCCTGCG TGCCGAAGAT ACCGCCGTGT ACTATTGCGC TAGGCTGACG
ATCACTACAA GCGGAGATAG CTGGGGACAA GGGACAATGG TGACCGTCTC GAGC

SEQ ID NO: 138 polynucleotide sequence encoding anti-toxin B antibody 1129.g1 VL region

GACACCCAGA TGACTCAGTC TCCGTCAAGC CTTTCTGCCT CTGTTGGAGA TCGAGTCACA
ATTACGTGCA AGGCAAGCCA ACACGTGGGT ACCAACGTGG ACTGGTATCA ACAGAAGCCA
GGGAAGGTCC CCAAACTGCT GATCTACGGT GCCAGTATTC GCTATACCGG CGTGCCTGAT
CGCTTCACCG GAAGCGGGTC AGGGACCGAT TTCACACTGA CAATCAGCTC CCTGCAACCT
GAAGACGTGG CTACTTACTA CTGCCTGCAG TACAACTATA ATCCCTACAC CTTTGGCCAG
GGCACCAAAC TGGAGATAAA G

SEQ ID NO: 140 polynucleotide sequence encoding anti-toxin B antibody 1129.g1 VH region

GAGGTGCAAC TTGTGGAATC AGGAGGTGGC GTGGTTCAGC CCGGTAGATC ACTTCGTCTG
AGTTGTGCAA CAAGCGGCTT TATCTTCTCC AACTTCGGGA TGTCTTGGGT TAGACAGGCT
CCTGGTAAGG GCCTCGAATG GGTGGCTAGT ATTAGCCCAA GCGGGGGAAA CGCCTACTAT
AGGGACAGCG TGAAAGGACG CTTCACTATC AGCCGAGATA ACTCCAAGAC CACGCTGTAT
CTGCAGATGA ATAGTCTGAG GGCCGAGGAT ACCGCAGTGT ACTACTGCAC TCGACGGGCC
TATTCTTCCC CTTTTGCCTT TTGGGGACAG GGGACTCTGG TGACAGTCTC GAGC

Figure 9

SEQ ID NO: 148 polynucleotide sequence encoding anti-toxin B antibody 1134.g5 VL region

GACGTCCAGC TCACTCAATC TCCCTCCTTT CTGTCTGCTT CTGTGGGCGA TCGCGTGACA
ATAACCTGCA AGGCCTCCAA ATCAATTAGC AACCATCTGG CATGGTATCA GGAGAAGCCT
GGCAAAGCCA ATAAGCTGCT GATCCACTCC GGCTCAACTC TGCAACCCGG TACCCCAAGC
CGATTTAGCG GATCTGGGAG CGGAACCGAG TTCACACTTA CCATTAGCTC CCTGCAACCG
GAGGACTTCG CCACCTATTA CTGCCAGCAA TACGACGAAT ACCCCTATAC GTTCGGCCAA
GGGACAAGAT TGGAAATCAA G

SEQ ID NO: 150 polynucleotide sequence encoding anti-toxin B antibody 1134.g5 VH region

GAAGTTCAGC TGCAGGAATC TGGACCTGGC TTGGTGAAAC CAAGCGAGAC ACTTAGTCTC
ACTTGCACCG TTTCCGGCTT CTCCCTTAAT TCCTACACGA TCACTTGGGT GCGGCAACCA
CCCGGGAAAG GACTGGAATG GATCGCAGCC ATTAGCGGGG GAGGGAGCAC CTATTTCAAC
TCGGCTCTCA AGAGCCGCGT GACCATATCC CGTGACACAA GCAAGAGCCA GGTTTCCCTG
AAGCTGAGCT CCGTGACTGC TGCCGATACG GCTGTTTACT ATTGCACCCG ACCTCGCTGG
TATCCCCGTT CCTATTTCGA CTACTGGGGA AGAGGCACAC TGGTTACCGT CTCG

SEQ ID NO: 158 polynucleotide sequence encoding anti-toxin B antibody 1151.g4 VL region

GCGATTCAAA TGACTCAGTC GCCCTCATCG CTTAGCGCGT CCGTCGGAGA TAGAGTGACG
ATCACGTGCA AAGCATCACA AAATGTCGGG AACAATGTGG CATGGTATCA GCATAAACCG
GGGAAGGCAC CAAAACTCTT GATCTACTAC GCCAGCAACA GGTTTACTGC TGTCCCGTCA
AGGTTCACGG GAGGGGGTTA CGGGACAGAC TTTACTTTGA CCATTTCGTC GCTTCAGCCG
GAGGACTTCG CCACCTATTA CTGTCAGAGG GTCTACCAGT CAACGTGGAC ATTTGGCCAG
GGAACGAAAG TGGAAATCAA G

Figure 10

SEQ ID NO: 160 polynucleotide sequence encoding anti-toxin B antibody 1151.g4 VH region

GAAGTACAAC TCCAAGAGTC GGGGCCTGGT CTGGTCAAGC CGTCCGAAAC ACTTTCGCTG
ACGTGTACGG TATCAGGATT CTCACTTACA TCATACTACG TCCACTGGGT GAGGCAGCCA
CCCGGGAAGG GTCTTGAGTG GATGGGCTGC ATTAGAACCG GAGGGAATAC CGAGTACCAG
AGCGAATTTA AGAGCCGCGT CACTATCAGC CGGGATACGT CCAAAAACCA GGTGTCGCTC
AAATTGTCCT CCGTGACGGC CGCTGACACC GCAGTGTACT ATTGCGCGCG AGGAAACTAT
GGCTTTGCGT ATTGGGGACA GGGGACGCTC GTAACTGTCT CG

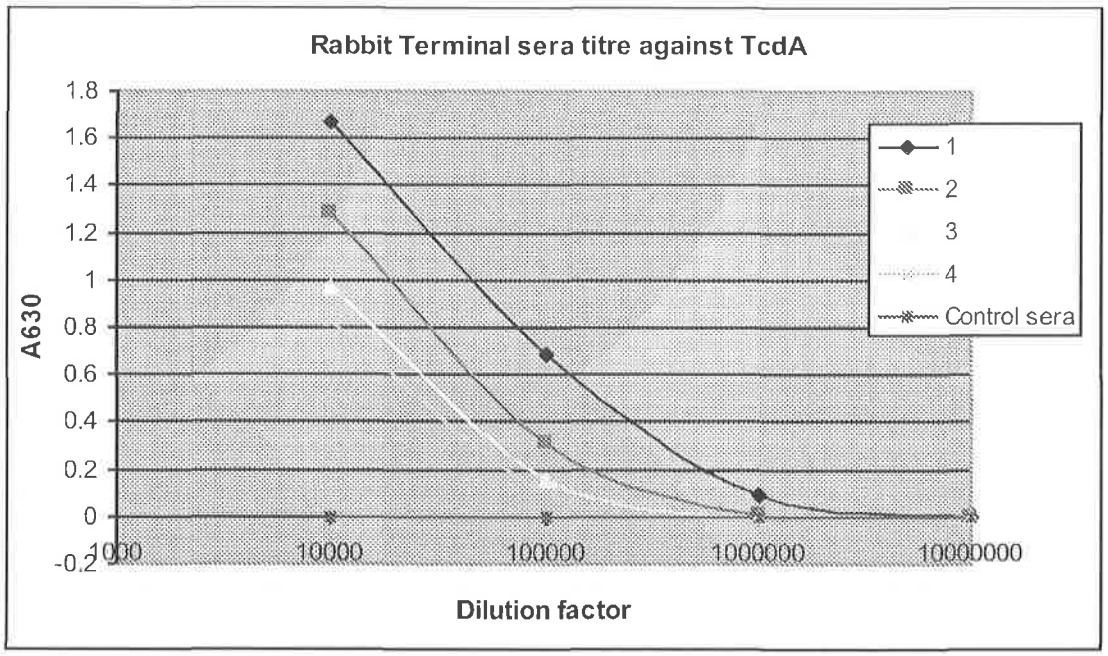
SEQ ID NO: 168 polynucleotide sequence encoding anti-toxin B antibody 1153.g8 VL region

GATATACAGA TGACTCAGTC CCCTTCTAGC CTTTCAGCTT CCGTGGGCGA TAGAGTGACT
ATCACGTGTA AGGCTAGTCA GAACATTAAC AAGTATCTGG ACTGGTACCA GCAGAAACCC
GGGAAGGTTC CCAAGCTGCT GATCTACAAC ATCCAGTCCC TGCATACAGG CATTCCTAGC
CGGTTTAGCG GATCTGGTTC AGGGACCGAC TTCACCCTGA CAATCAGCTC TCTGCAACCA
GAAGACGTGG CCACCTATTA CTGCTTCCAG CACAATAGTG GCTGGACTTT TGGACAAGGT
ACCAGGCTGG AGATCAAA

SEQ ID NO: 170 polynucleotide sequence encoding anti-toxin B antibody 1153.g8 VH region

GAGGTTCAGC TGGTGGAATC AGGAGGGGGT CTGGTGCAAC CAGGAGGCTC CCTGAAACTG
TCTTGCGCCG CAAGCGGCTT TACGTTTACC CAGGCCGCTA TGTTCTGGGT TAGGCAGGCC
AGTGGGAAGG GTCTTGAAGG CATCGCAAGA ATCAGCACCA AGAGCAACAA TTTCGCTACG
TACTATCCGG ACTCCGTGAA AGGCCGGTTT ACCATTTCTC GCGATGACAG CAAGAACACC
GTGTACCTGC AGATGAACAG TCTCAAGACC GAGGACACAG CCGTGTACTA TTGTACTGCT
CCCGCCTATT ATTACGATGG CACAGTGCCT TTCGCATACT GGGGACAGGG
TACTTTGGTG ACTGTCTCG

Figure 11
Sera titres from 4 rabbits immunised with TcdA toxoid and 5 rats immunised with TcdB binding domain (TcdB1234). ELISA data generated using TcdA toxin or TcdB binding domain coated on an ELISA plate



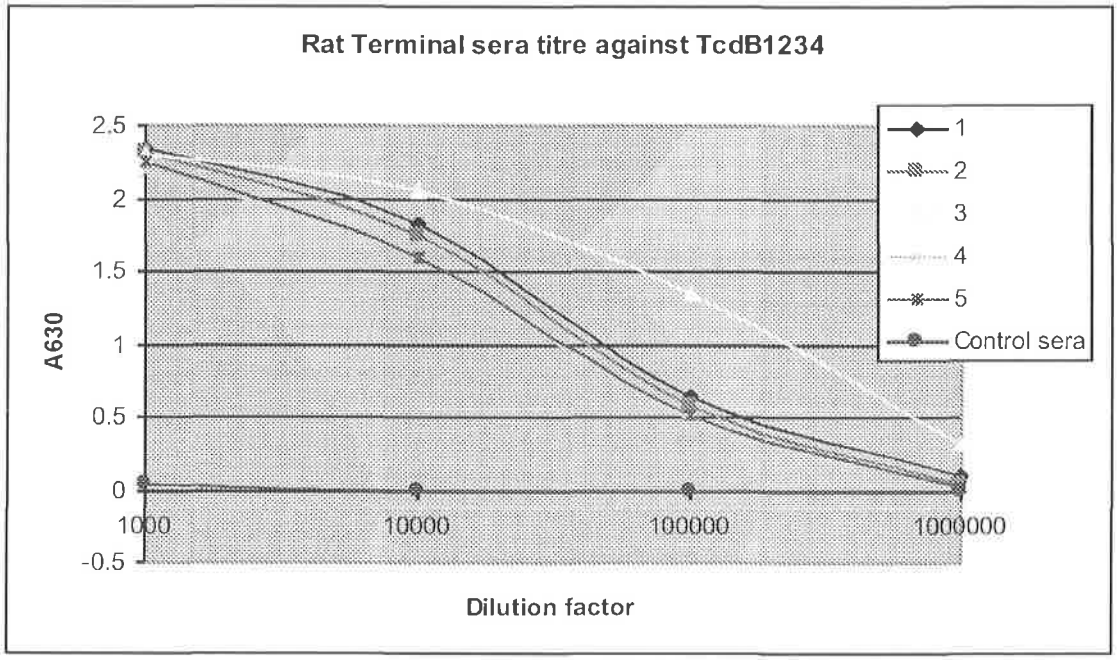


Figure 12 Anti TcdA (Ribotype 003) in-vitro neutralization data for single Mabs (X axis conc. (ng/ml) and Y axis % Neutralization)

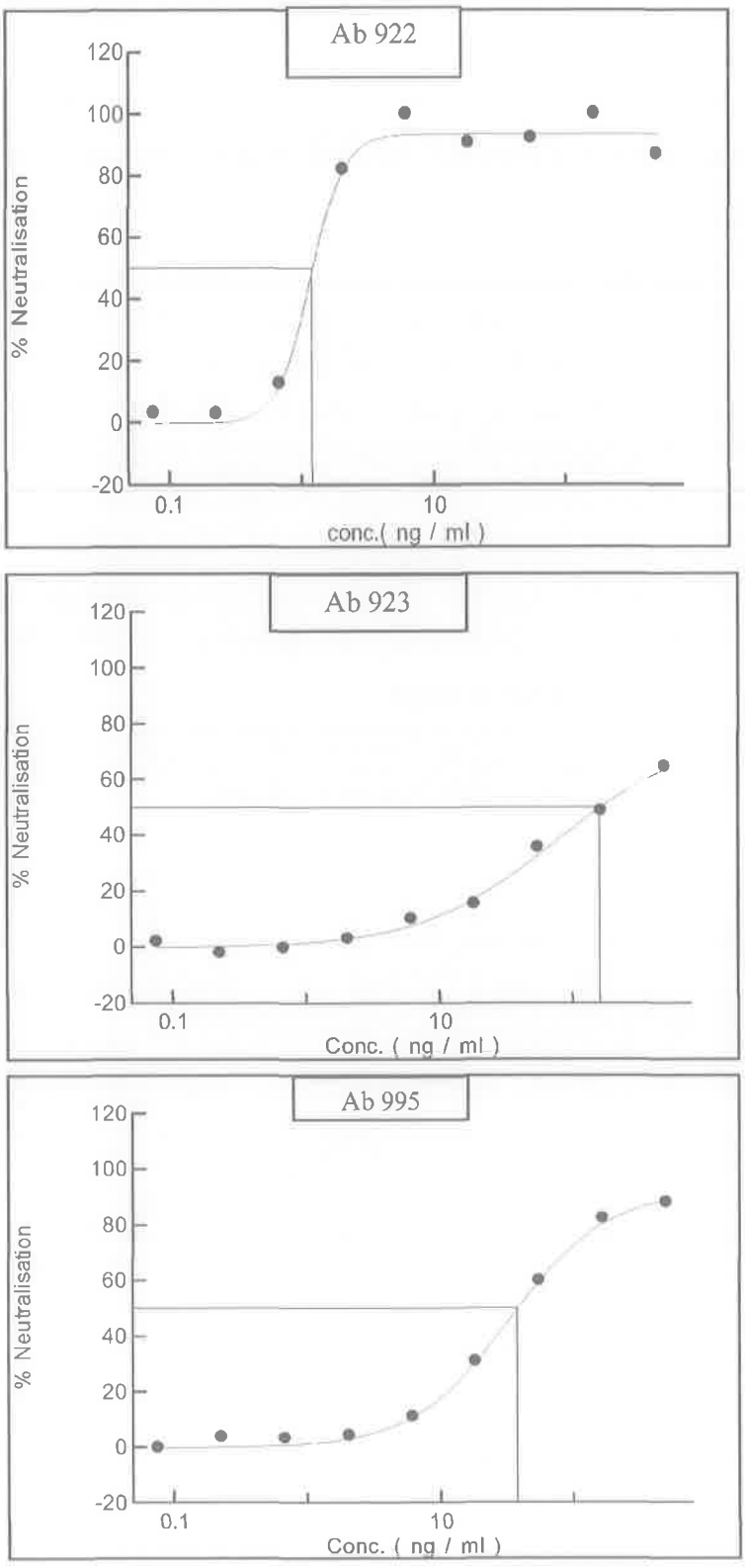


Figure 13 Anti TcdA (Ribotype 003) in-vitro neutralization data for single Mabs (X axis conc. (ng/ml) and Y axis % Neutralization)

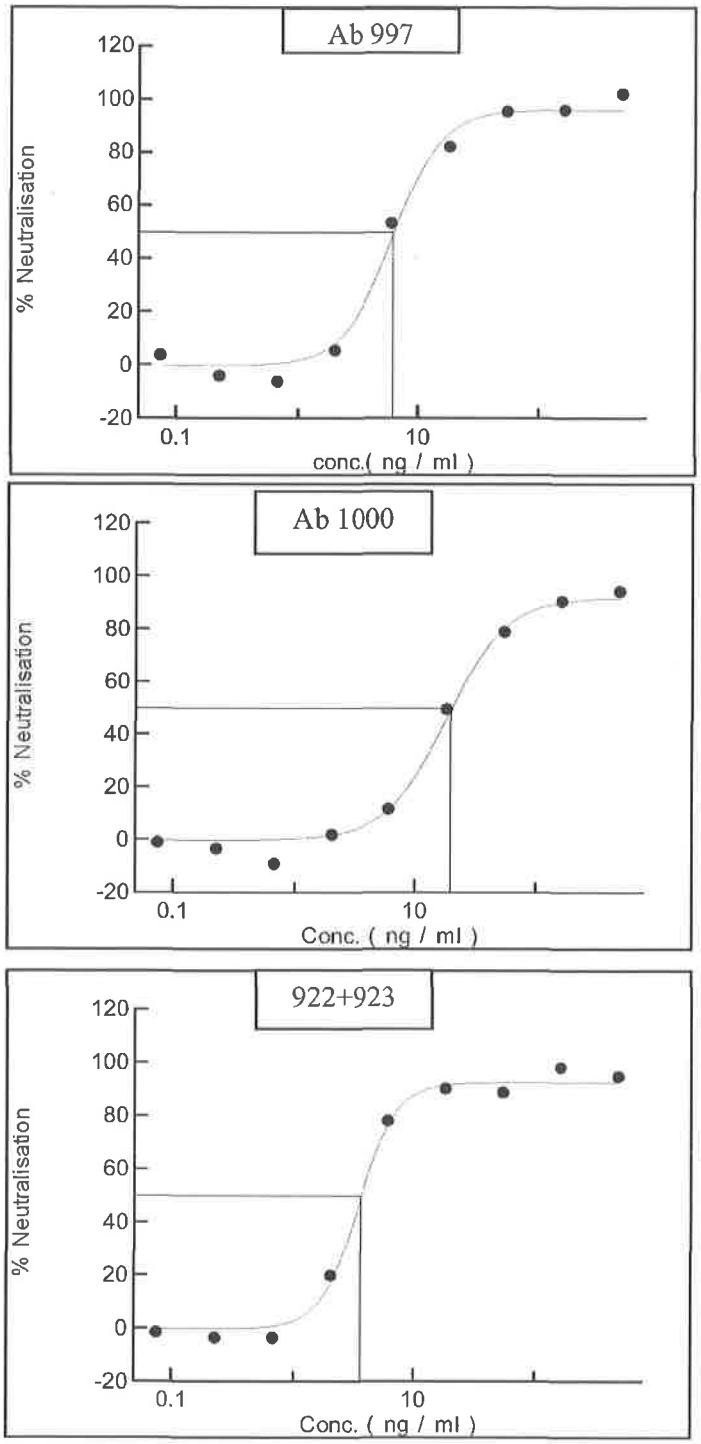


Figure 14 Anti TcdA (Ribotype 003) in-vitro neutralization data for paired Mabs (X axis conc. (ng/ml) and Y axis % Neutralization)

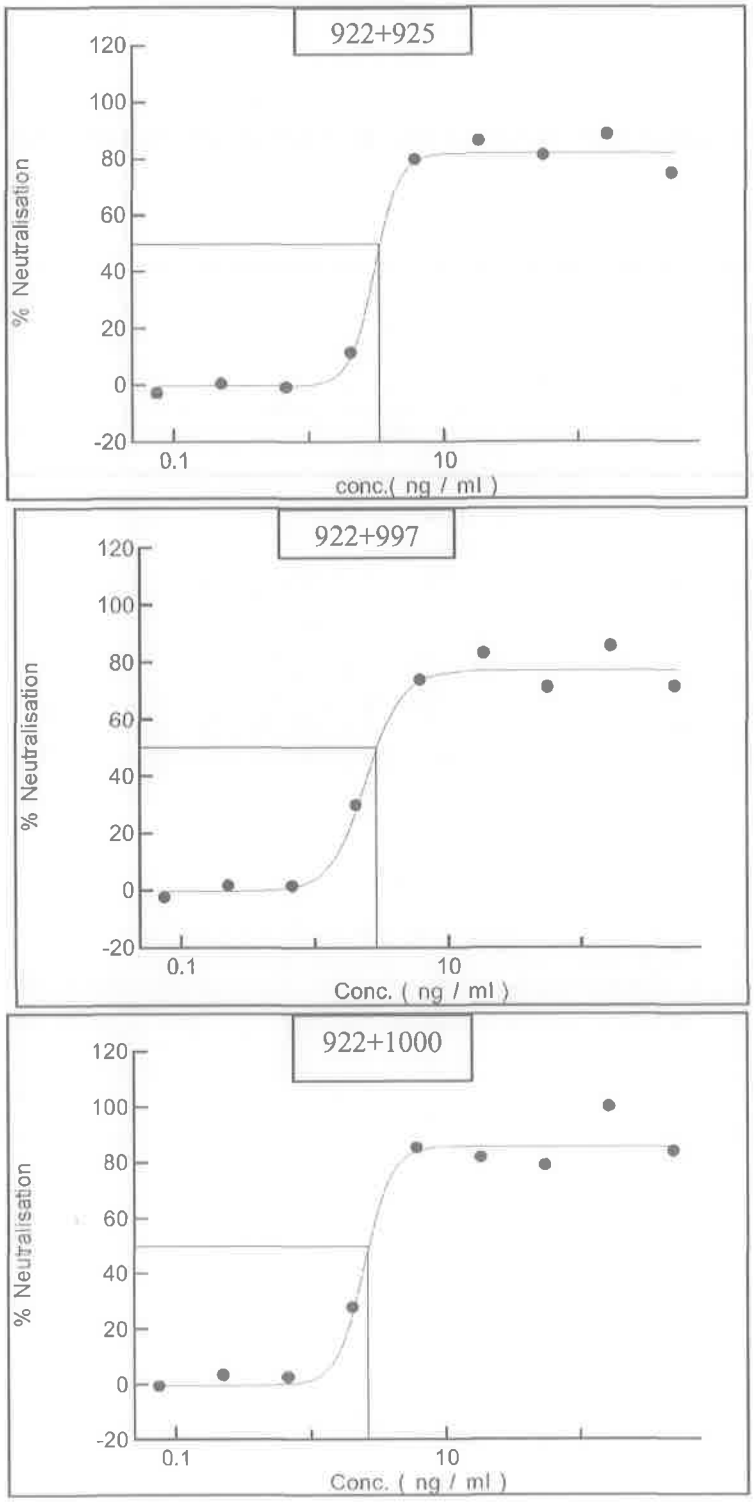


Figure 15 Anti TcdA (Ribotype 003) in-vitro neutralization data for paired Mabs (X axis conc. (ng/ml) and Y axis % Neutralization)

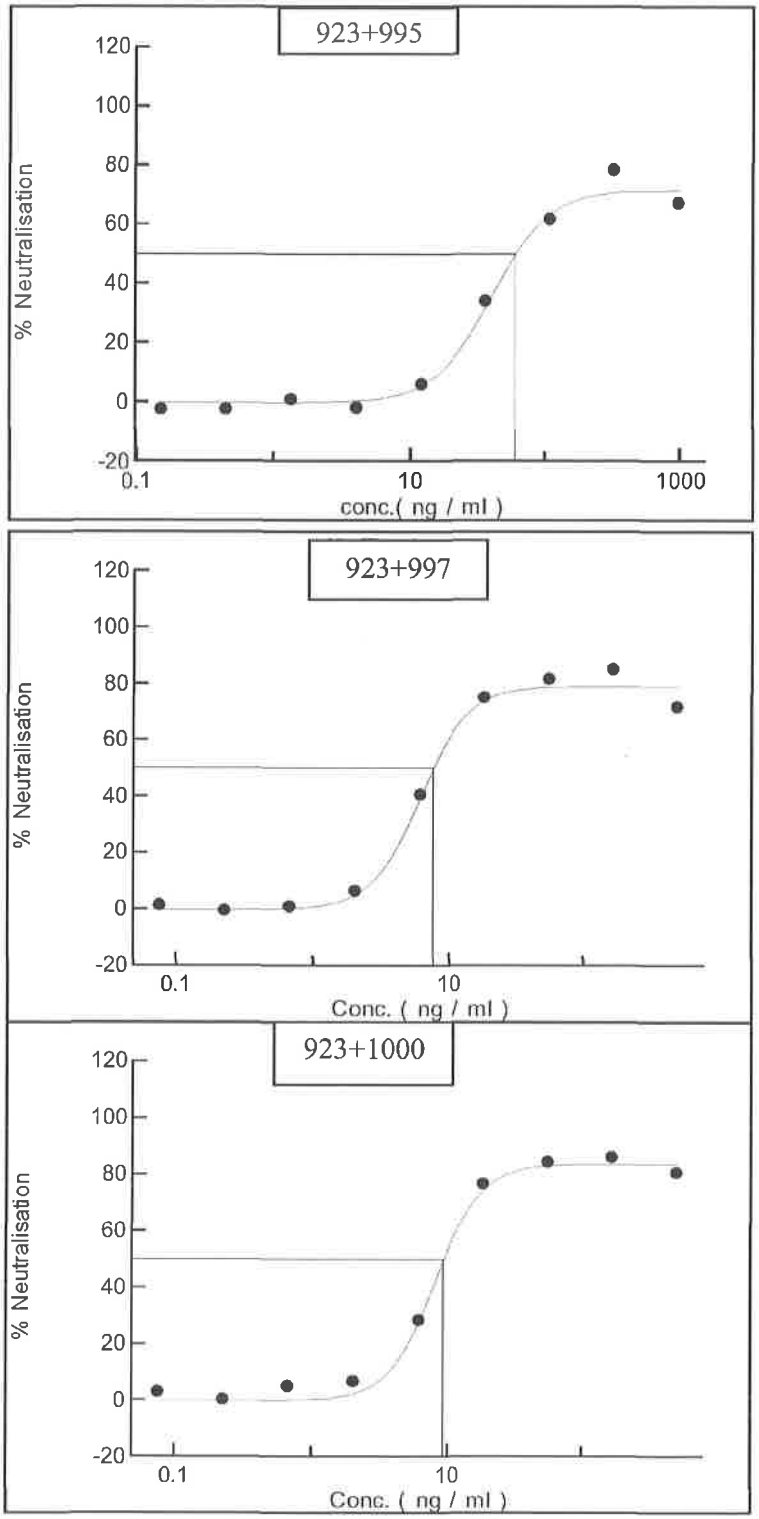


Figure 16 Anti TcdA (Ribotype 003) in-vitro neutralization data for three Mab mixtures (X axis conc. (ng/ml) and Y axis % Neutralization)

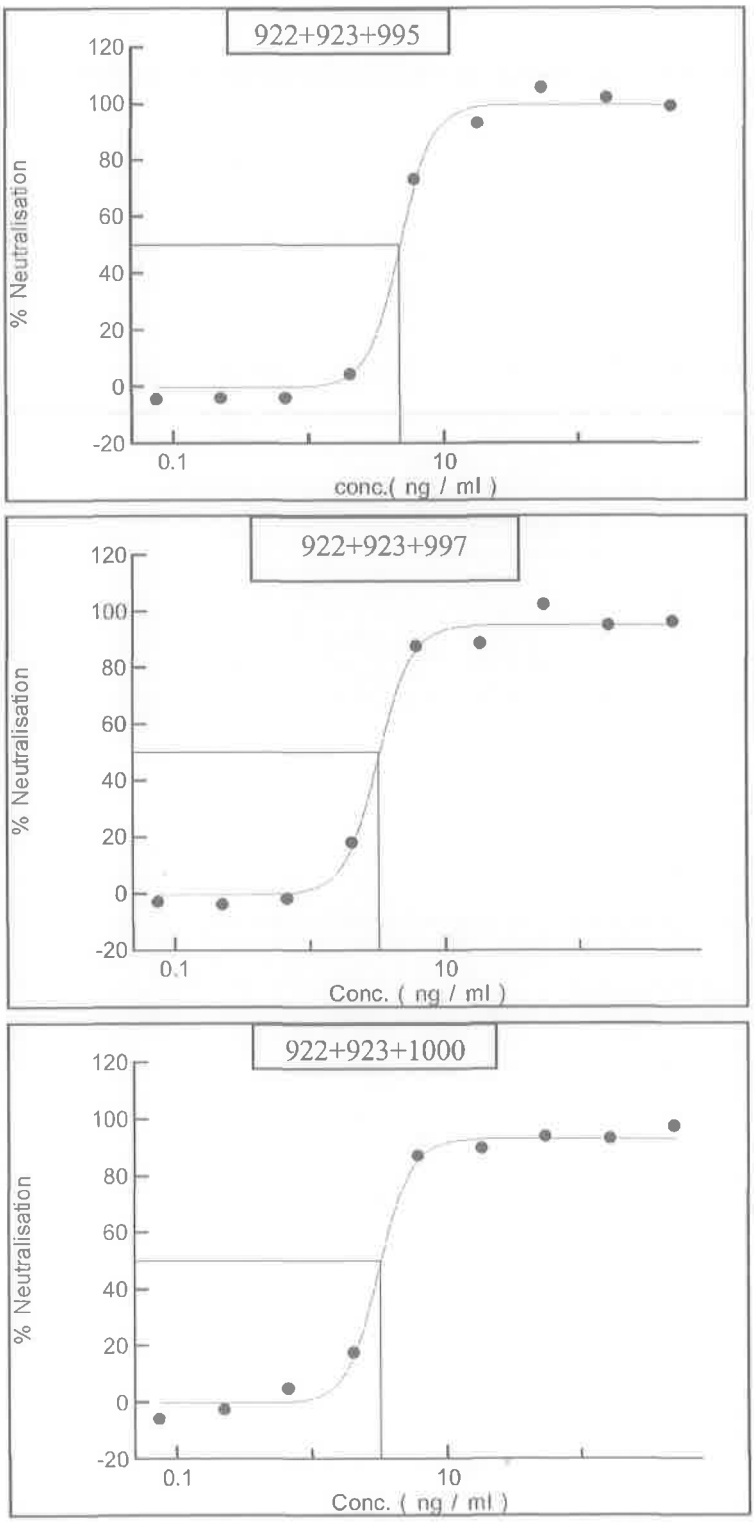


Figure 17 Anti TcdA (Ribotype 003) in-vitro neutralization data for three Mab mixtures (X axis conc. (ng/ml) and Y axis % Neutralization)

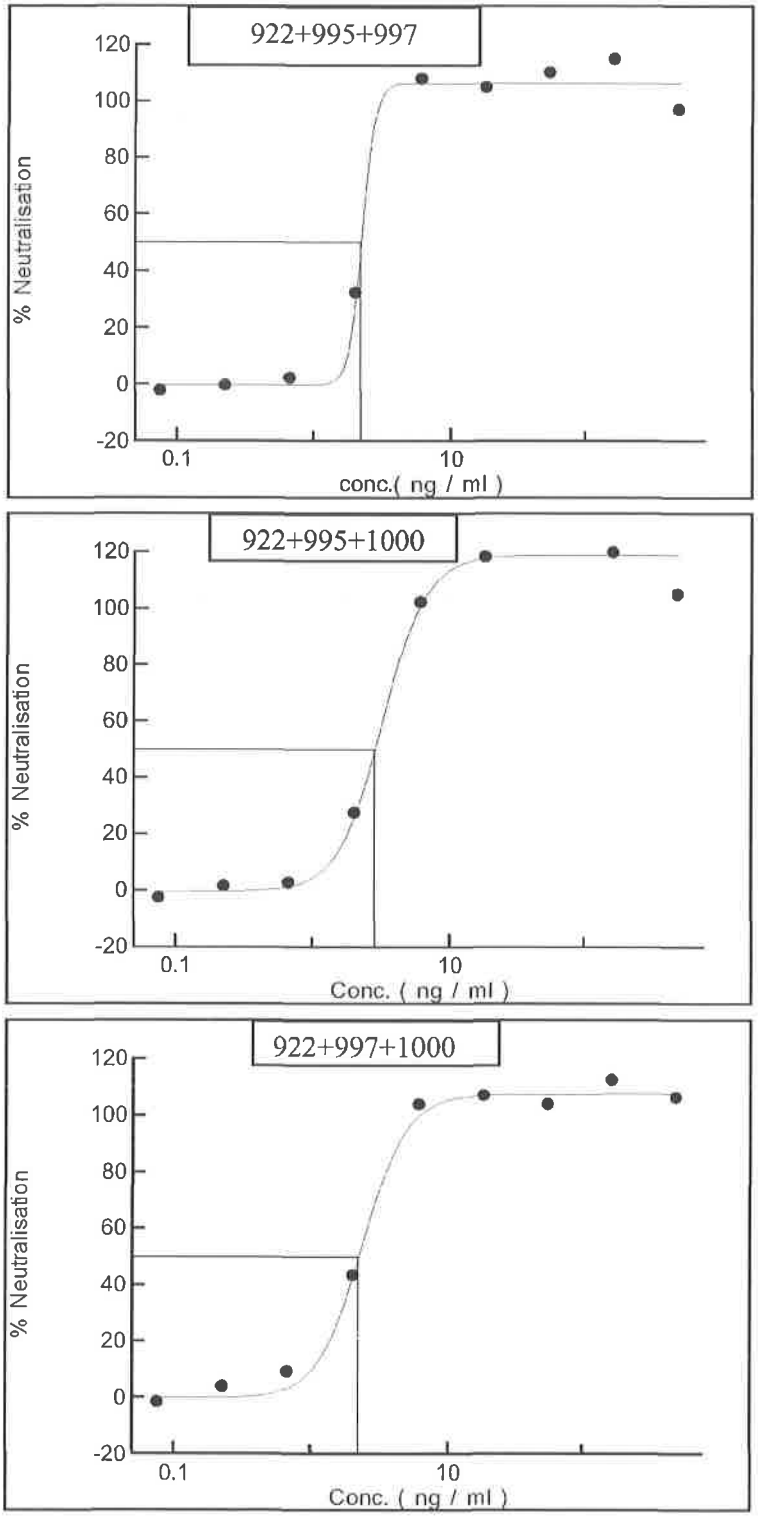


Figure 18 Anti TcdA (Ribotype 003) in-vitro neutralization data for three Mab mixtures (X axis conc. (ng/ml) and Y axis % Neutralization)

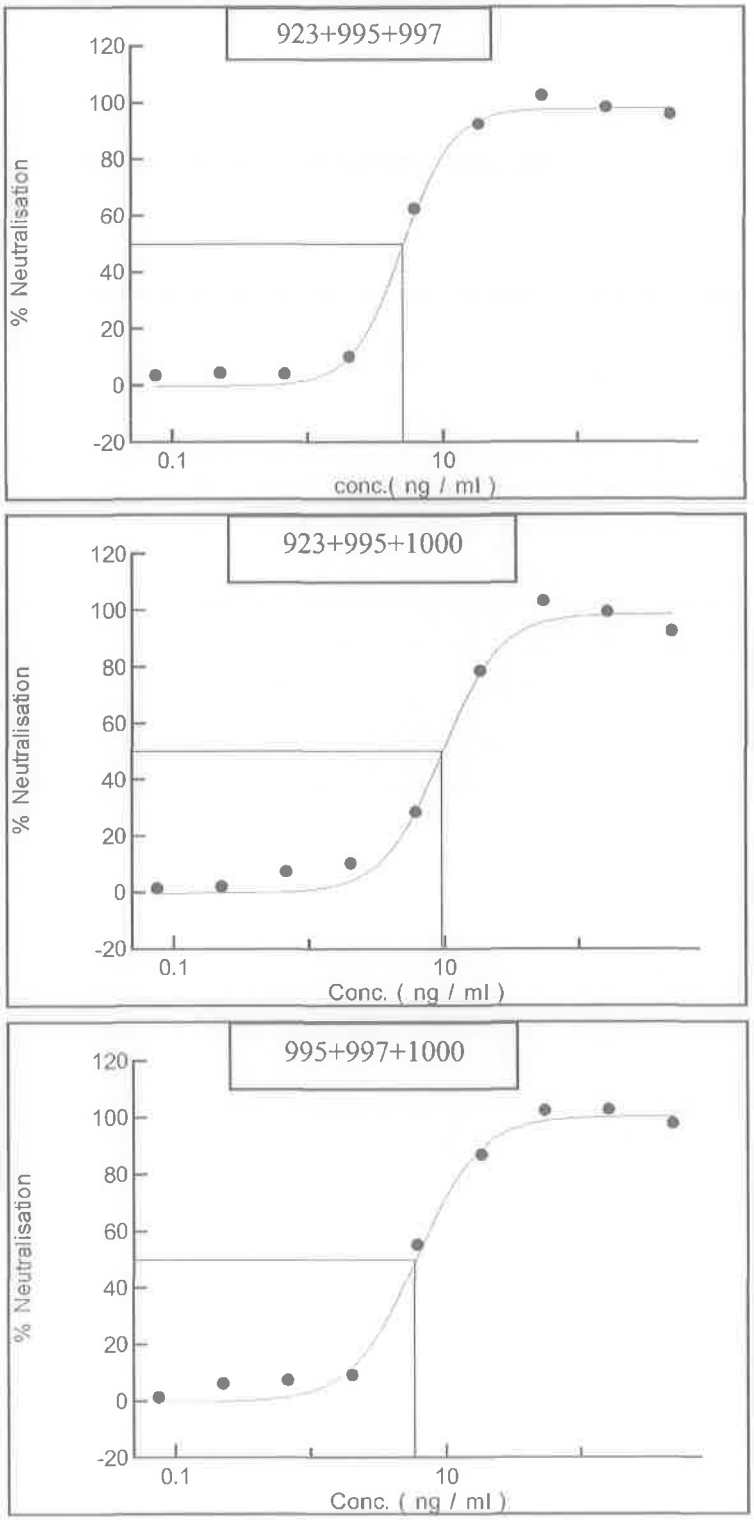


Figure 19 Anti TcdA (Ribotype 003) in-vitro neutralization data for four and five Mab mixtures (X axis conc. (ng/ml) and Y axis % Neutralization)

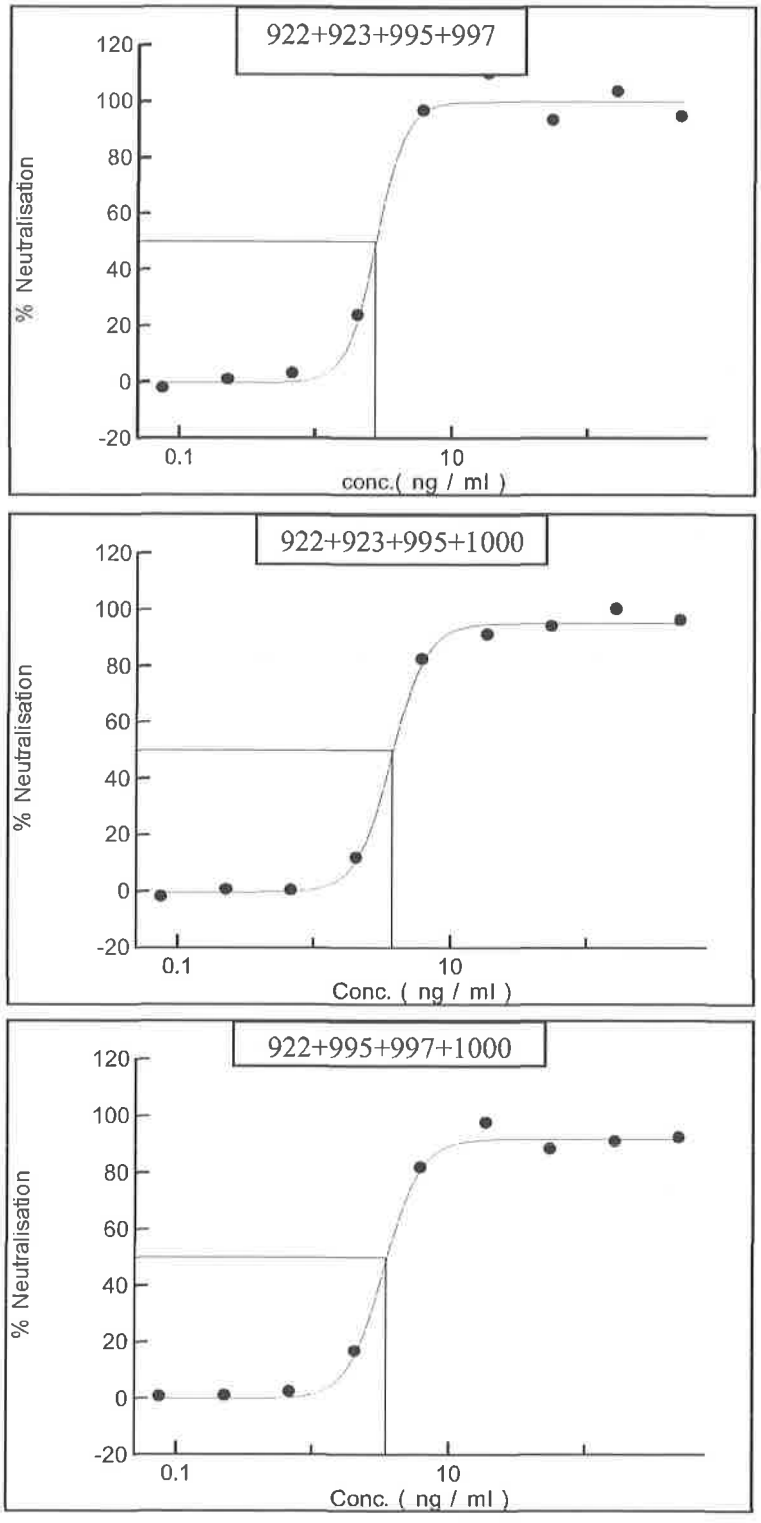


Figure 20 Anti TcdA (Ribotype 003) in-vitro neutralization data for four and five Mab mixtures (X axis conc. (ng/ml) and Y axis % Neutralization)

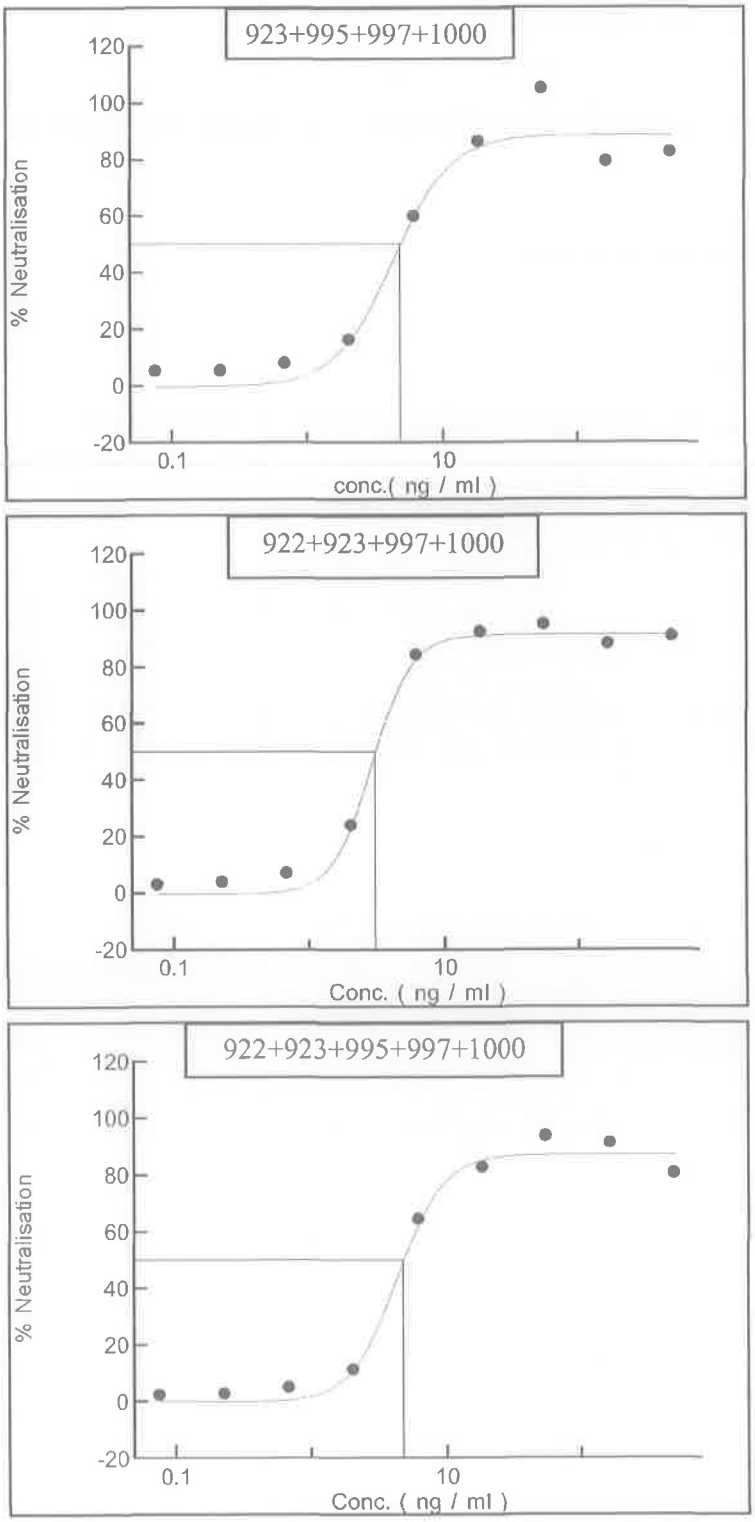
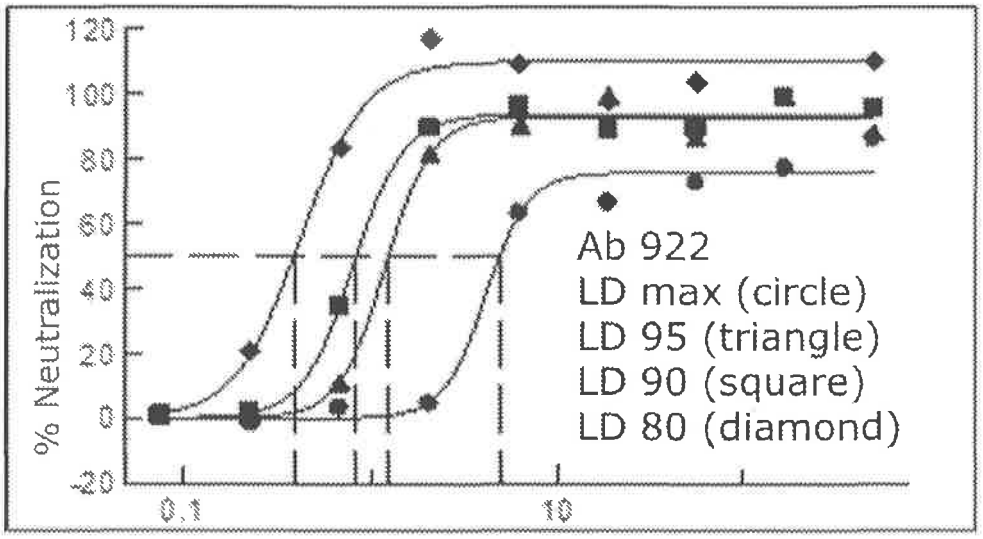
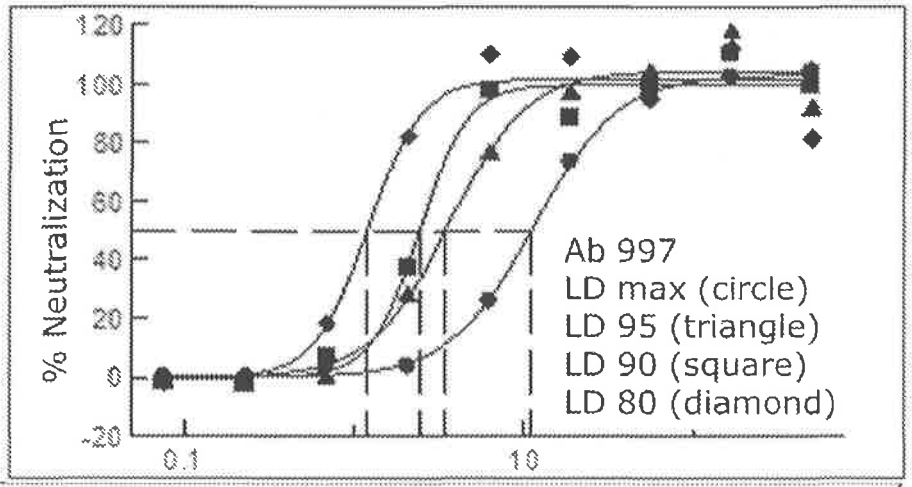


Figure 21 Anti TcdA (Ribotype 003) in-vitro neutralization data for single and paired Mabs at different TcdA concentrations (X axis is conc ng/ml)





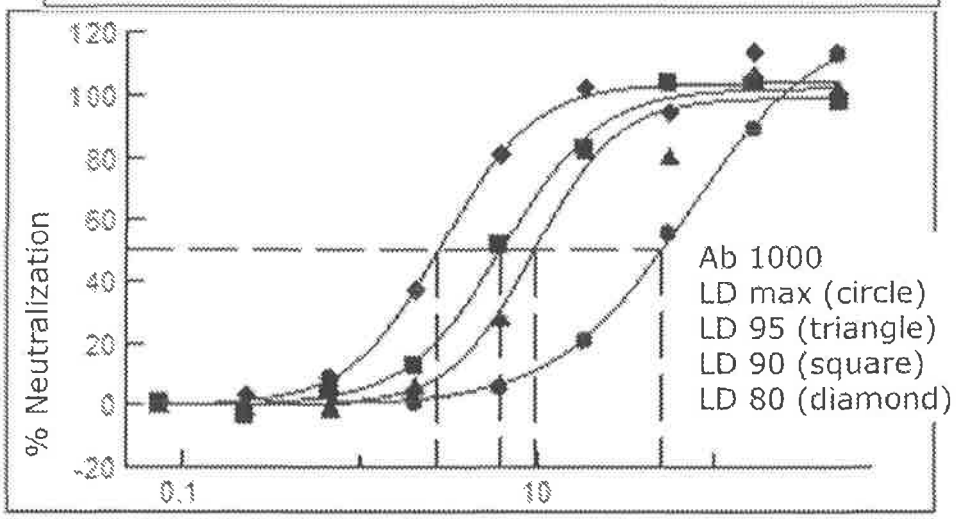


Figure 22 Anti TcdA (Ribotype 003) in-vitro neutralization data for single and paired Mabs at different TcdA concentrations (X axis is conc. ng/ml)

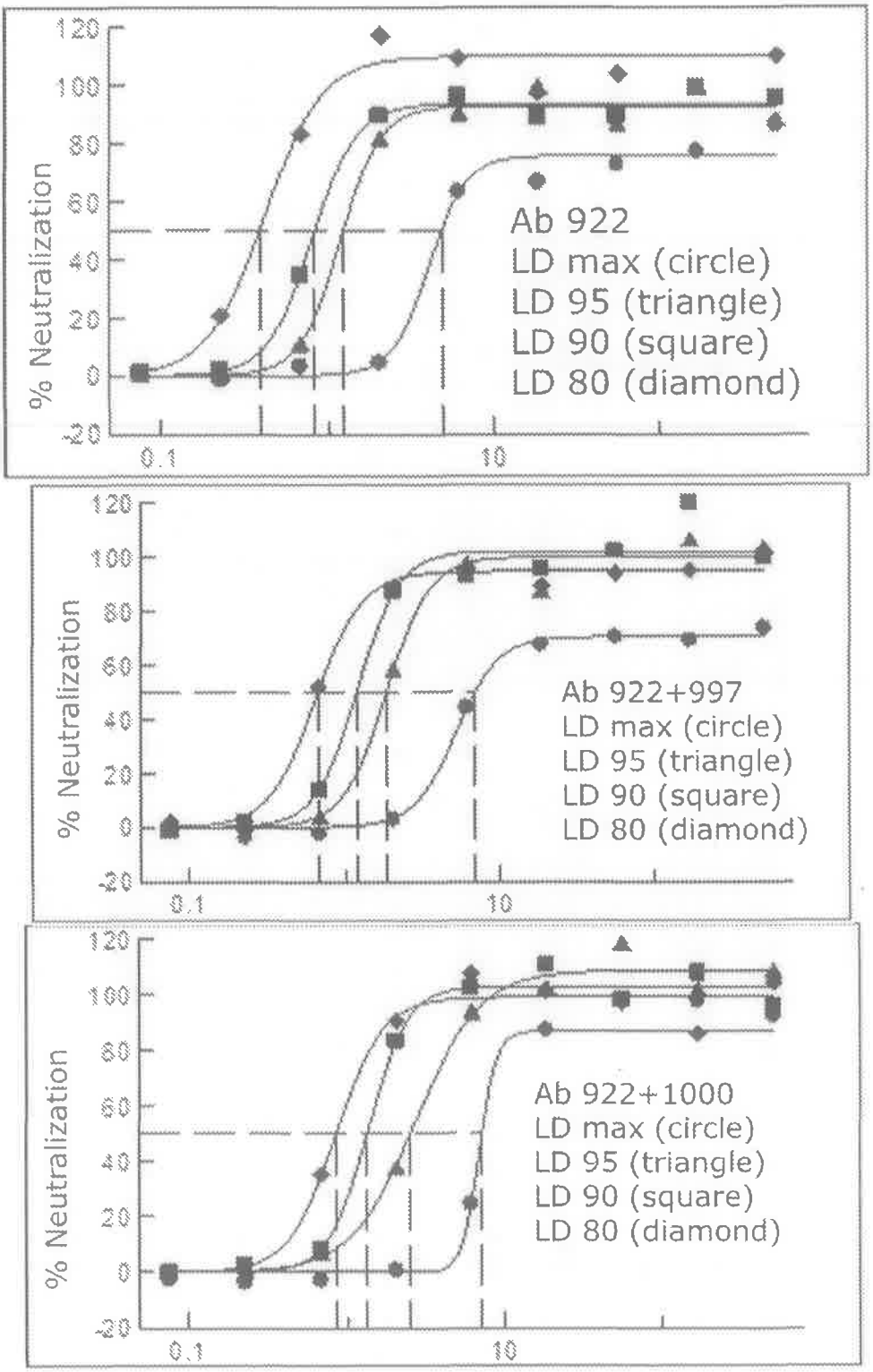


Figure 23 Anti TcdA (Ribotype 003) in-vitro neutralization data for single and to five Mab mixtures at different TcdA concentrations (X axis conc. ng/ml)

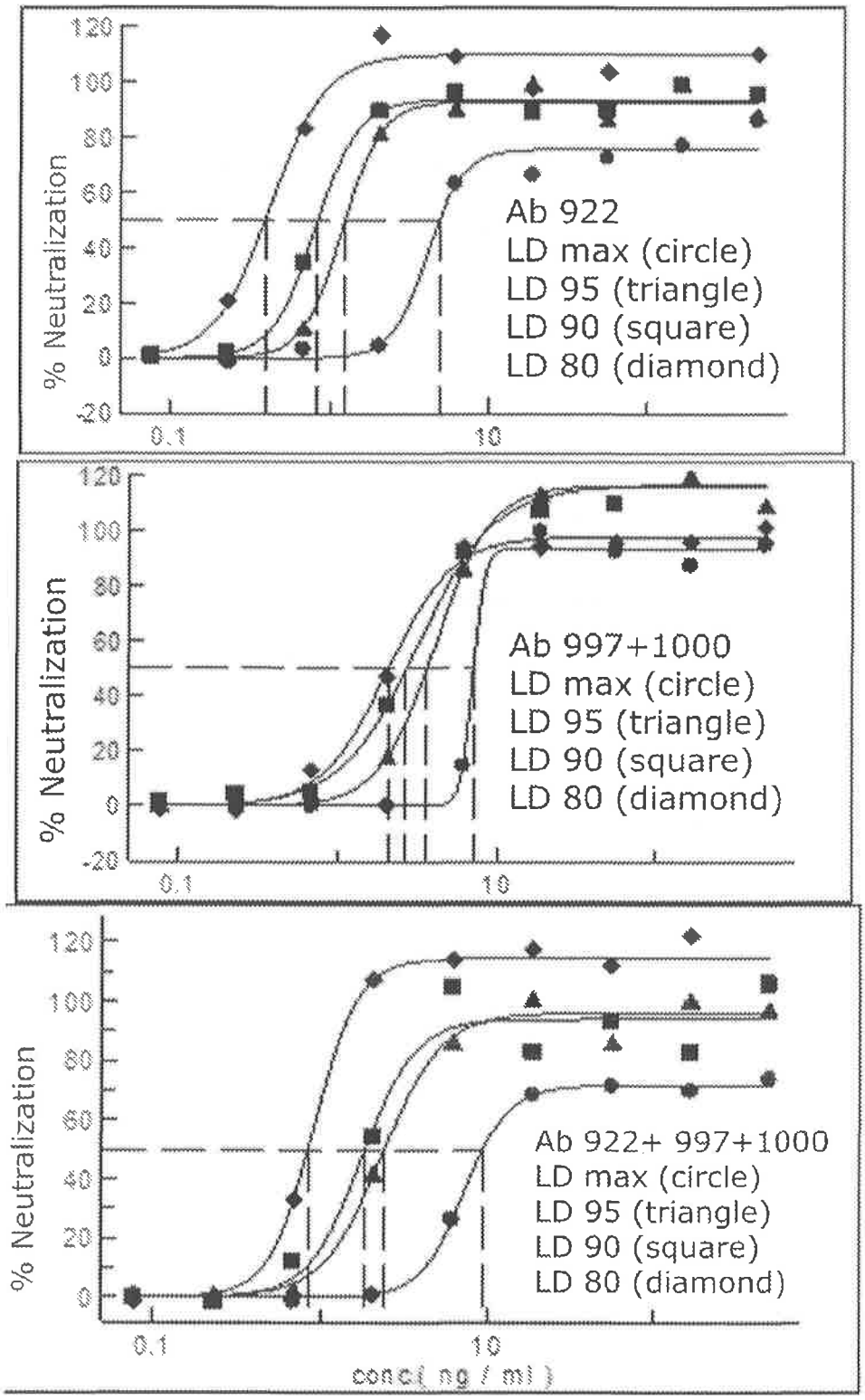


Figure 24 Anti TcdA (Ribotype 003) in-vitro neutralization data for single and to five Mab mixtures at different TcdA concentrations (X axis is conc. ng/ml

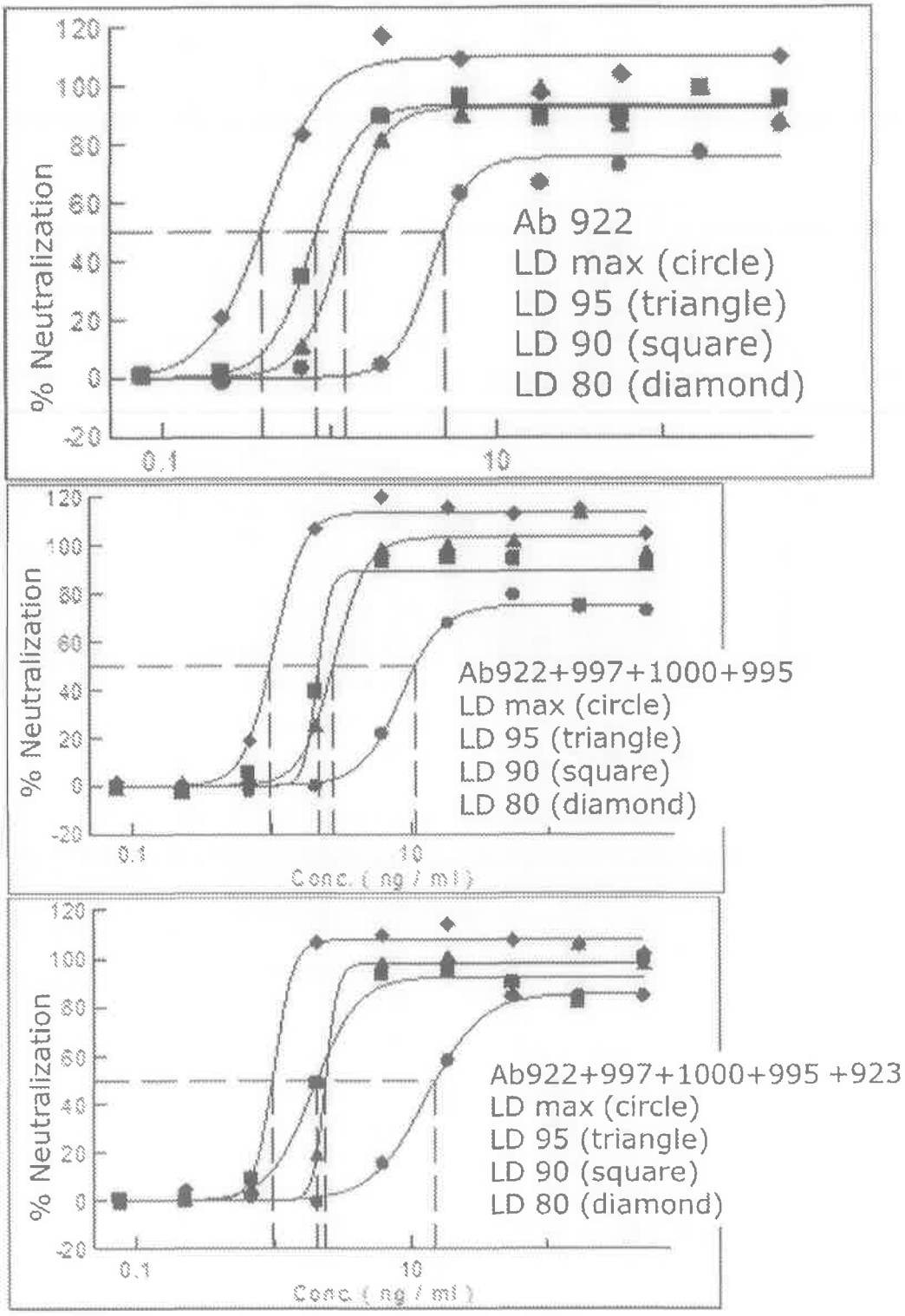


Figure 25 Anti TcdB (Ribotype 003) in-vitro neutralization data for single Mabs (Y axis neutralization X axis conc ng/ml for 1125.g2, 1134.g5 and 927.g2 respectively)

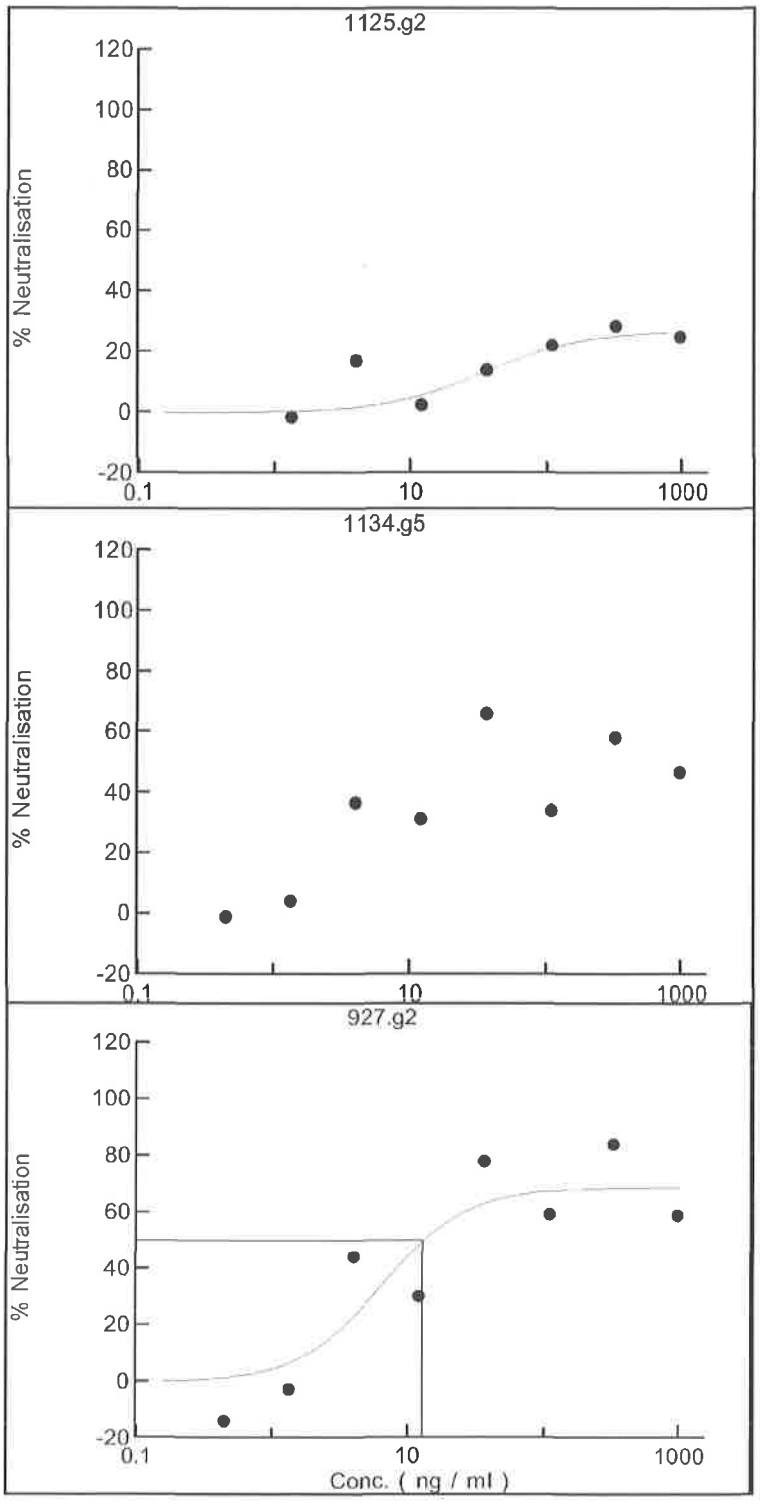


Figure 26 Anti TcdB (Ribotype 003) in-vitro neutralization data for single Mabs Y axis neutralization X axis conc ng/ml for1153.g8 and 1102.g4 respectively)

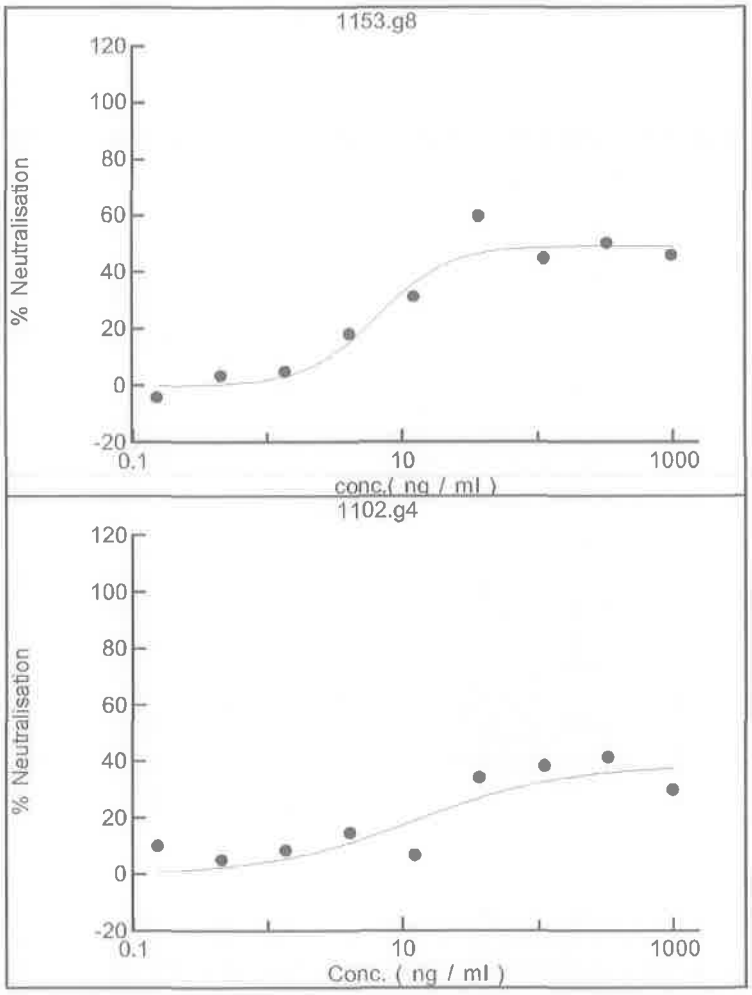


Figure 27 Anti TcdB (Ribotype 003) in-vitro neutralization data for paired Mabs Y axis neutralization X axis conc ng/ml for combinations of 927+1099, 927+1102, 927+1114 respectively)

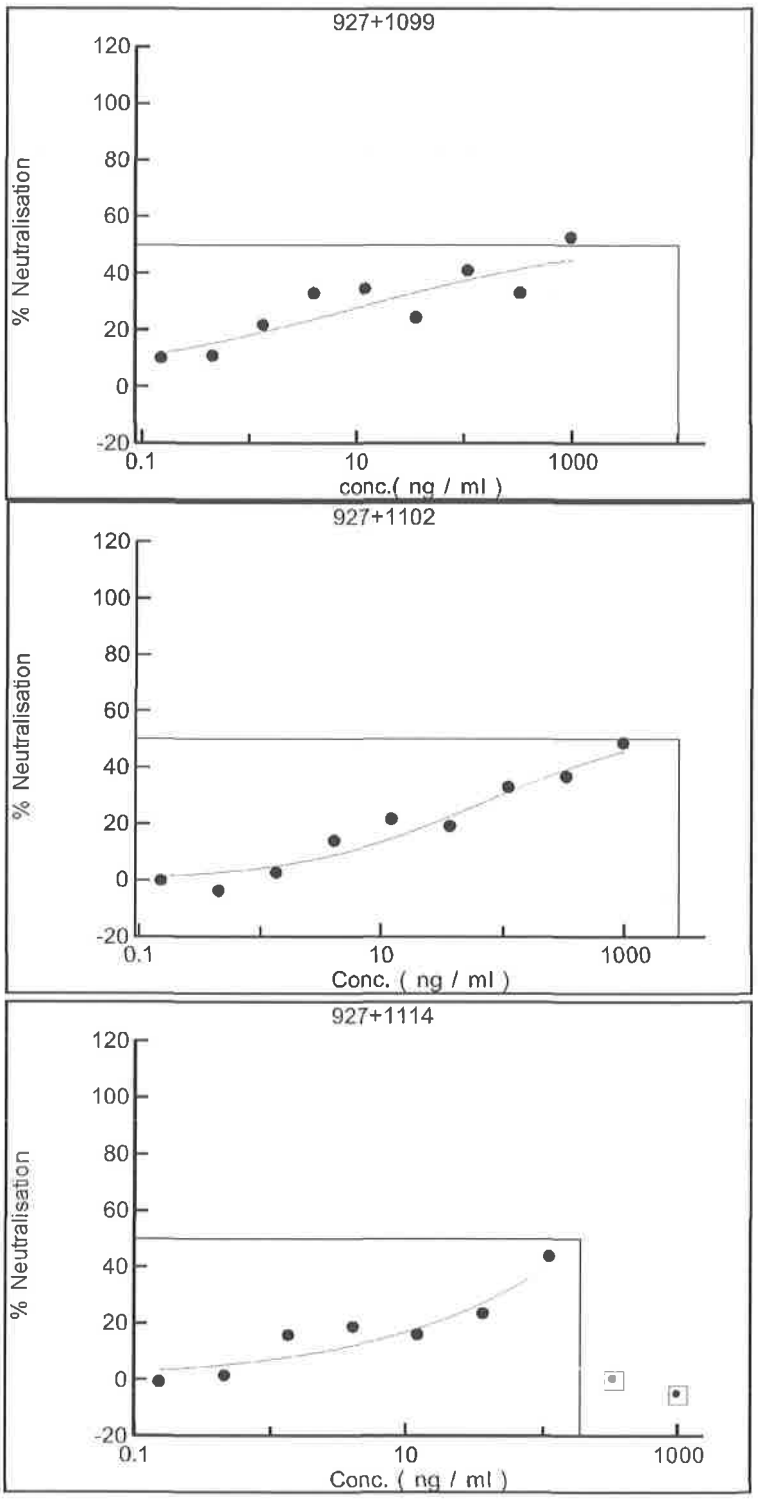


Figure 28 Anti TcdB (Ribotype 003) in-vitro neutralization data for paired Mabs (Y axis neutralization X axis conc ng/ml for combinations of 927+1125, 927+1134, 1099+1114 respectively)

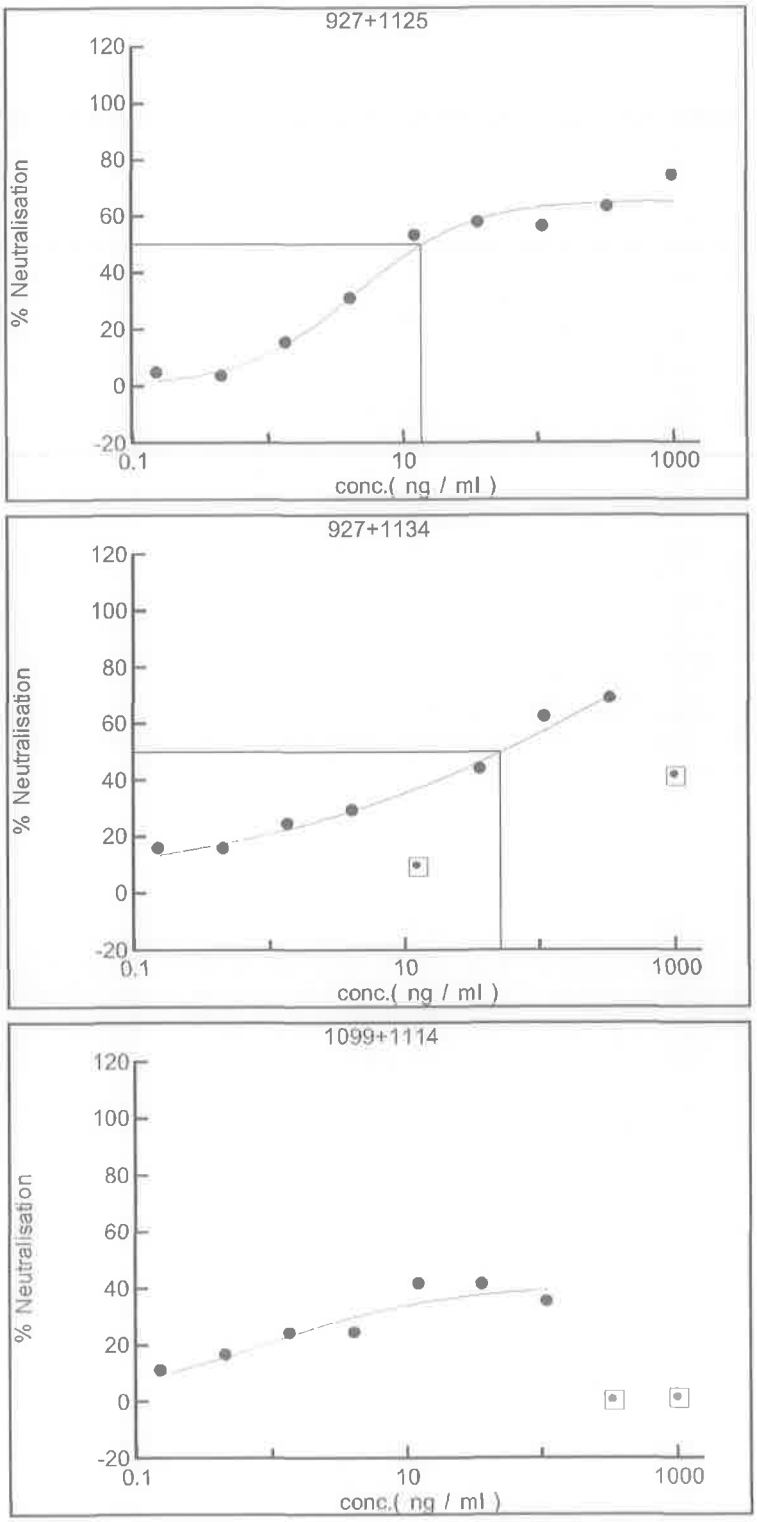


Figure 29 Anti TcdB (Ribotype 003) in-vitro neutralization data for paired Mabs (Y axis neutralization X axis conc ng/ml for combinations of 1102+1114, 1102+1125, 1114+1134 respectively)

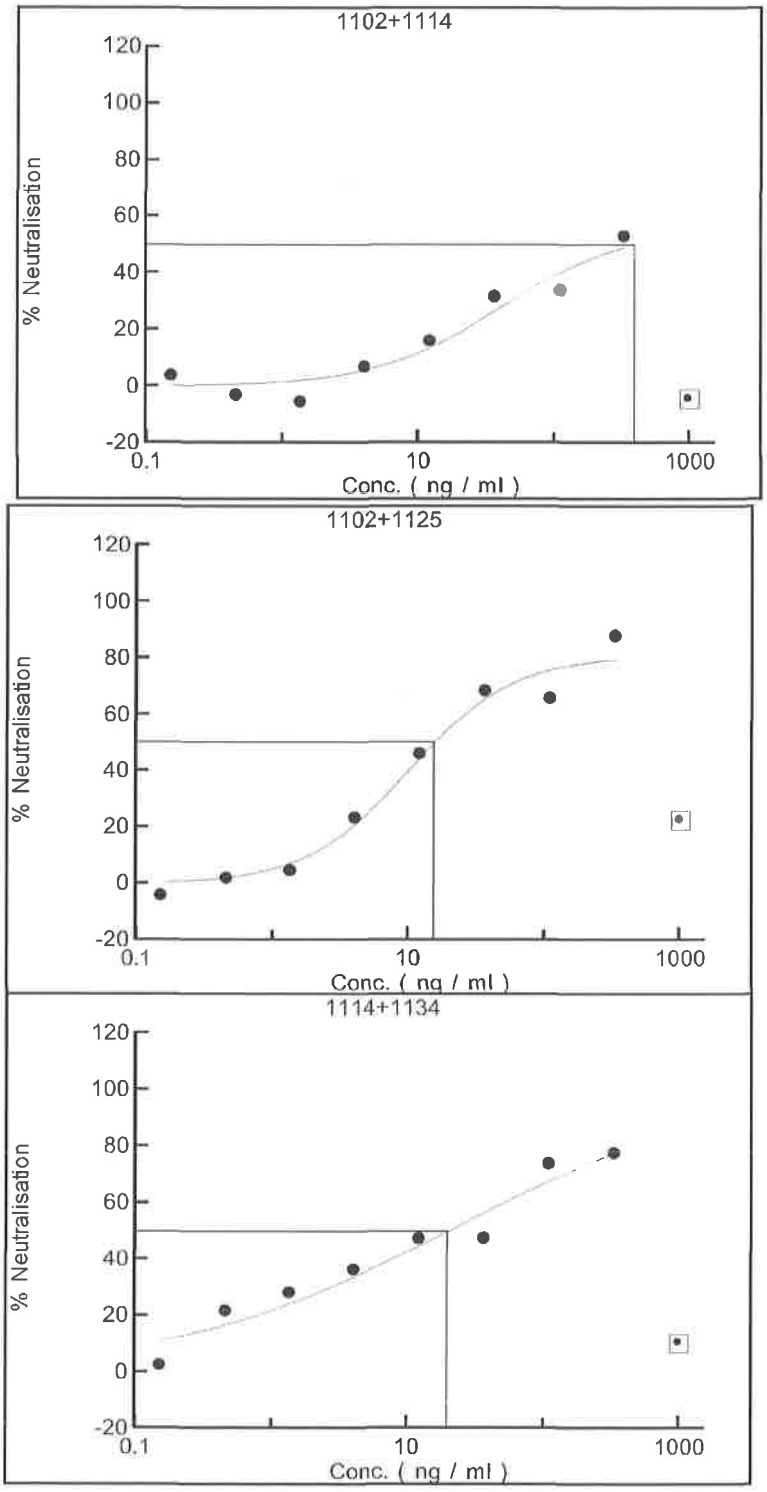


Figure 30 Anti TcdB (Ribotype 003) in-vitro neutralization data for paired Mabs (Y axis neutralization X axis conc ng/ml for combinations of 1114+1151, 1114+1153, 1125+1134 respectively)

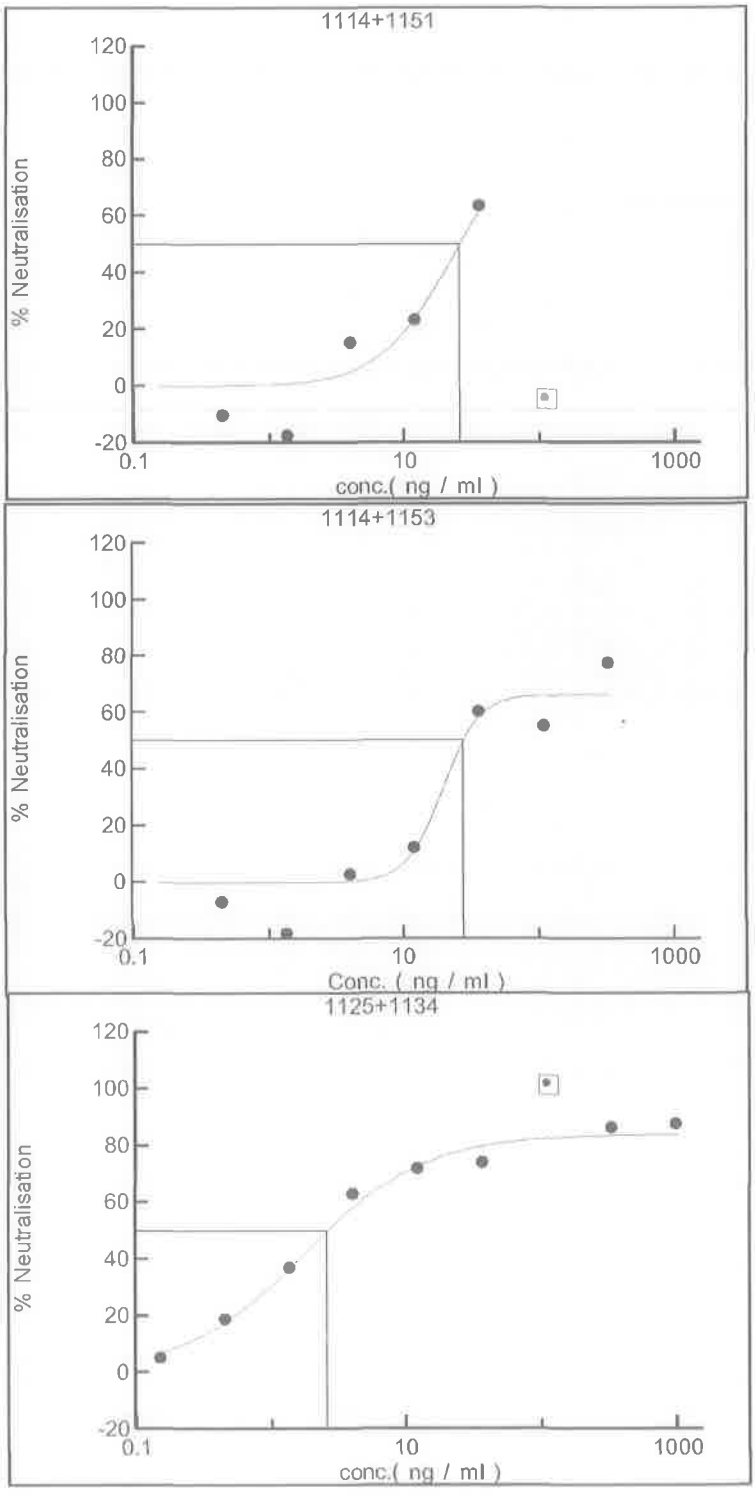


Figure 31 Anti TcdB (Ribotype 003) in-vitro neutralization data for three Mab mixtures (Y axis neutralization X axis conc ng/ml for combinations of 1125+1134+1114, 1125+1134+927, 1125+1151+*1114* respectively)

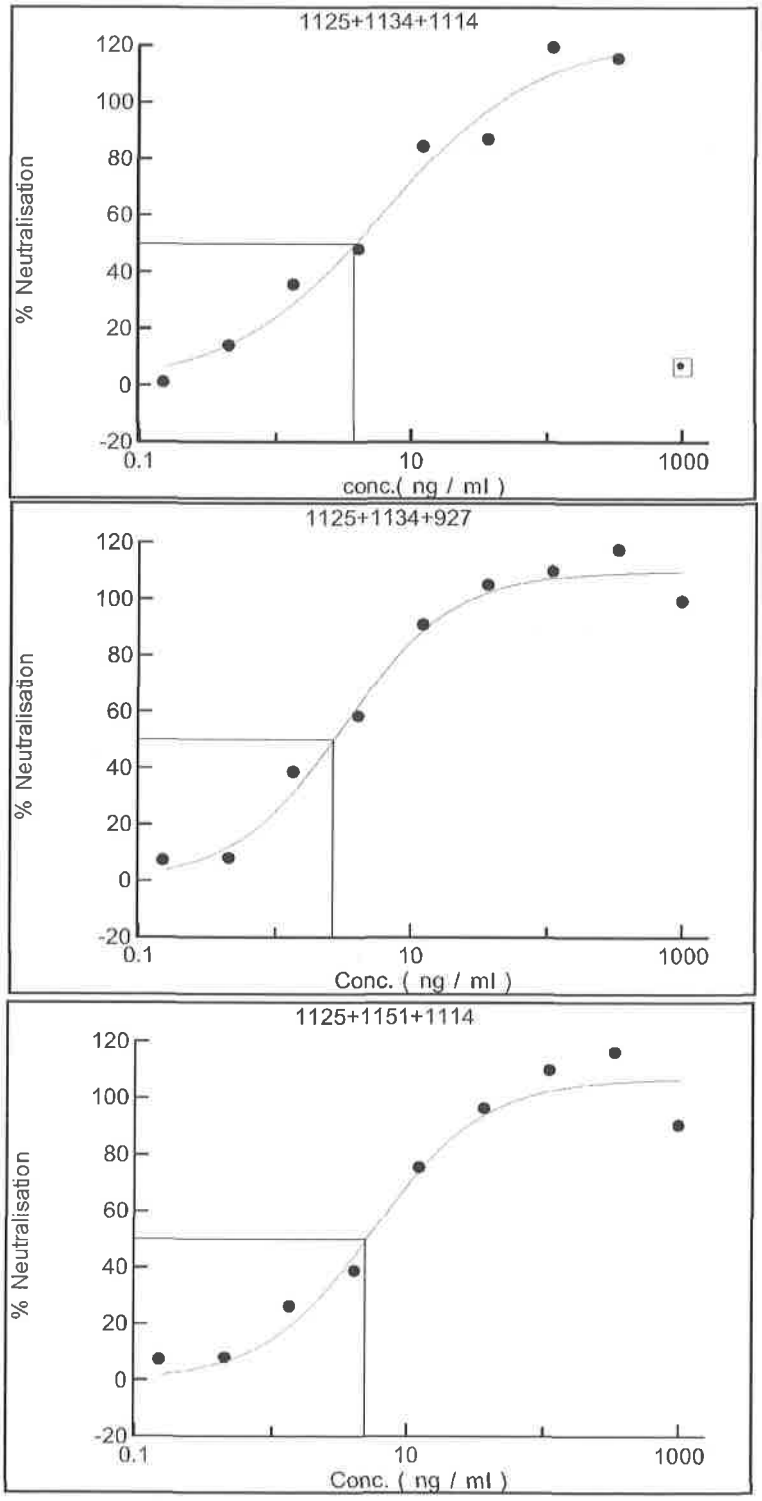


Figure 32 Anti TcdB (Ribotype 003) in-vitro neutralization data for three Mab mixtures (Y axis neutralization X axis conc ng/ml for 1125.+1151+927, 1125.g2+1134.g5+927.g2 respectively)

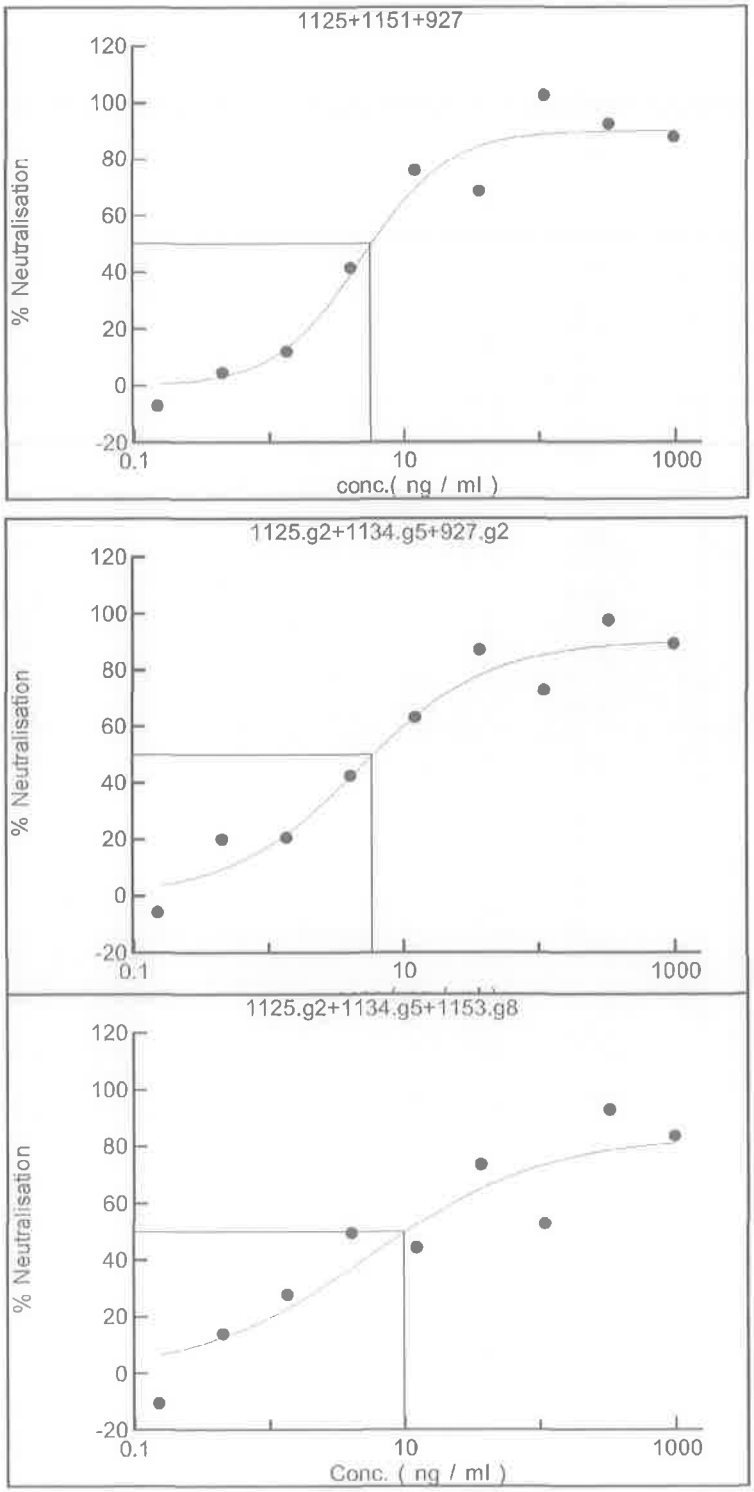


Figure 33 Anti TcdB (Ribotype 003) in-vitro neutralization data for three Mab mixtures

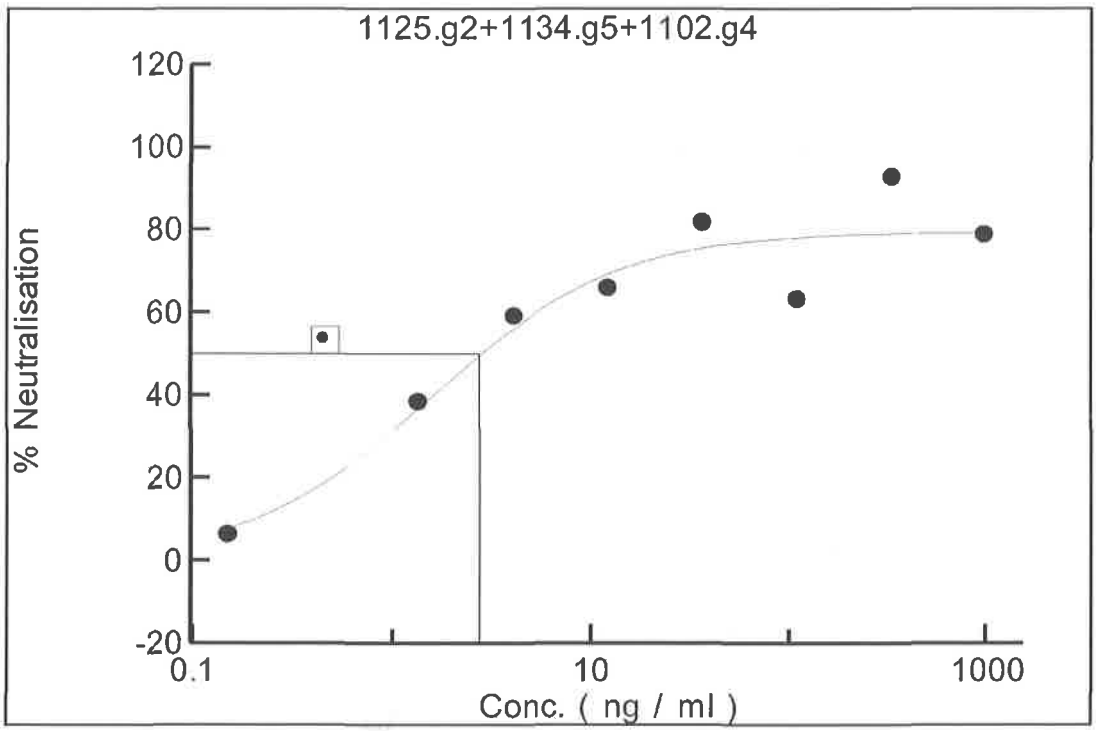


Figure 34 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

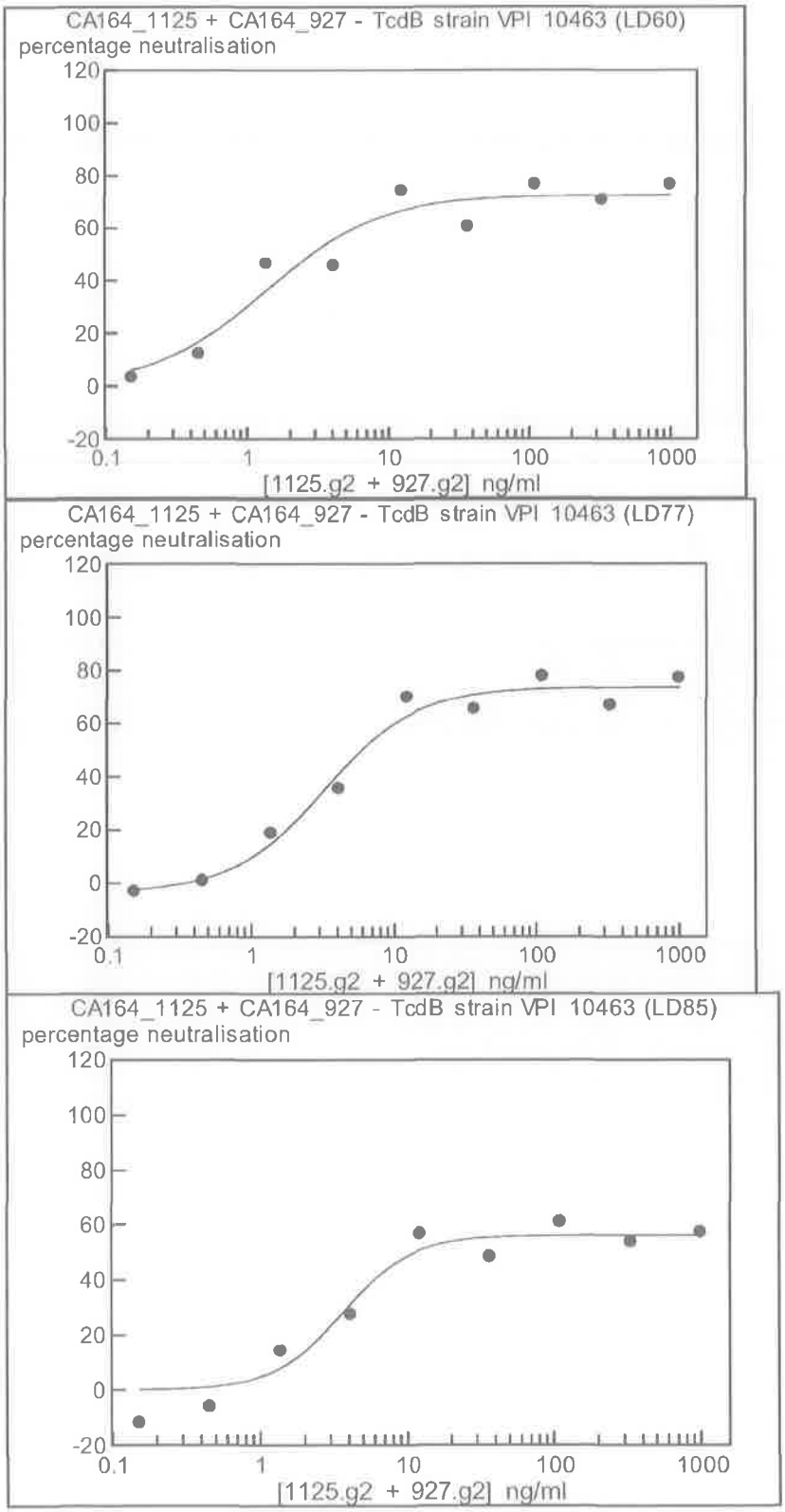


Figure 35 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

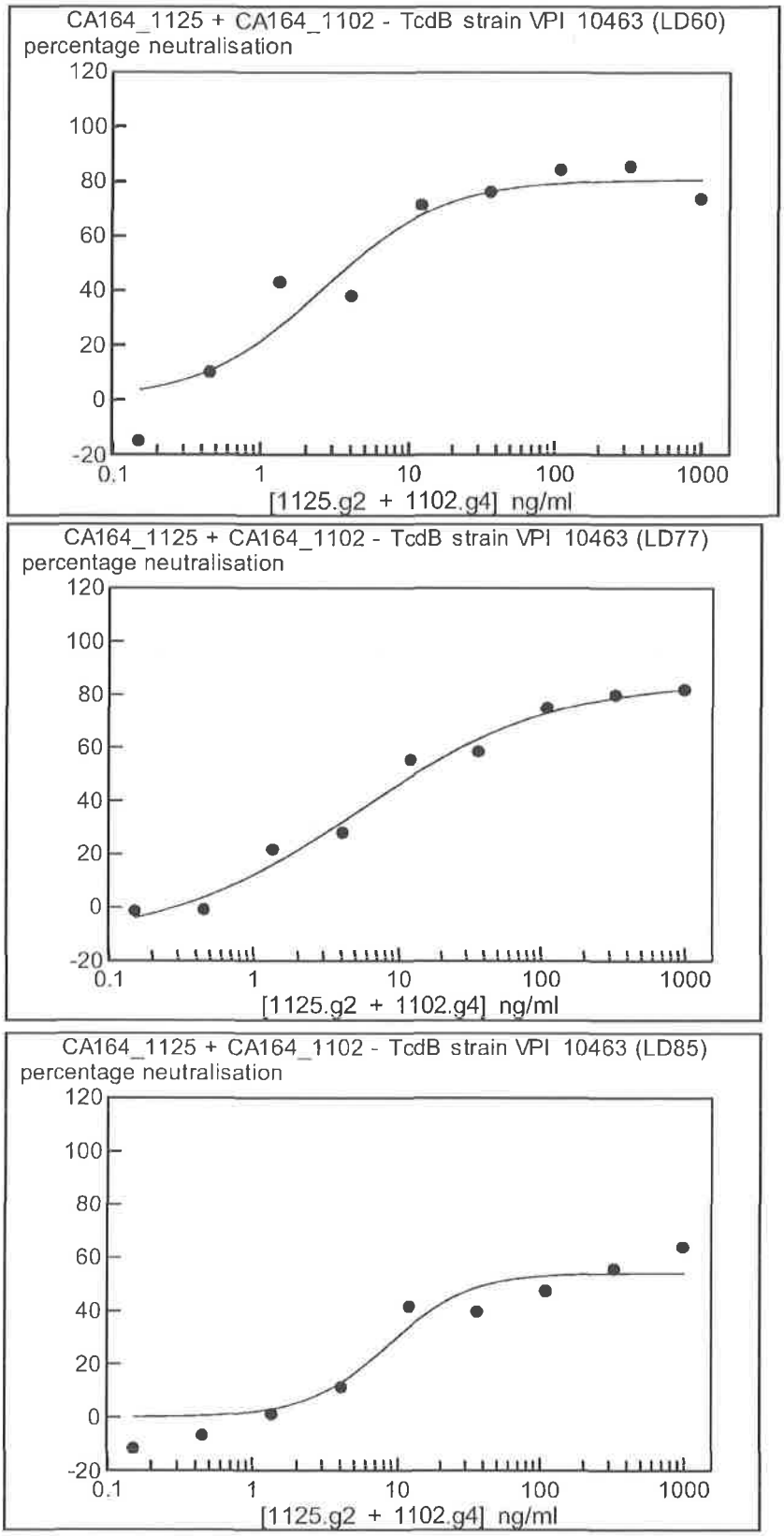


Figure 36 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

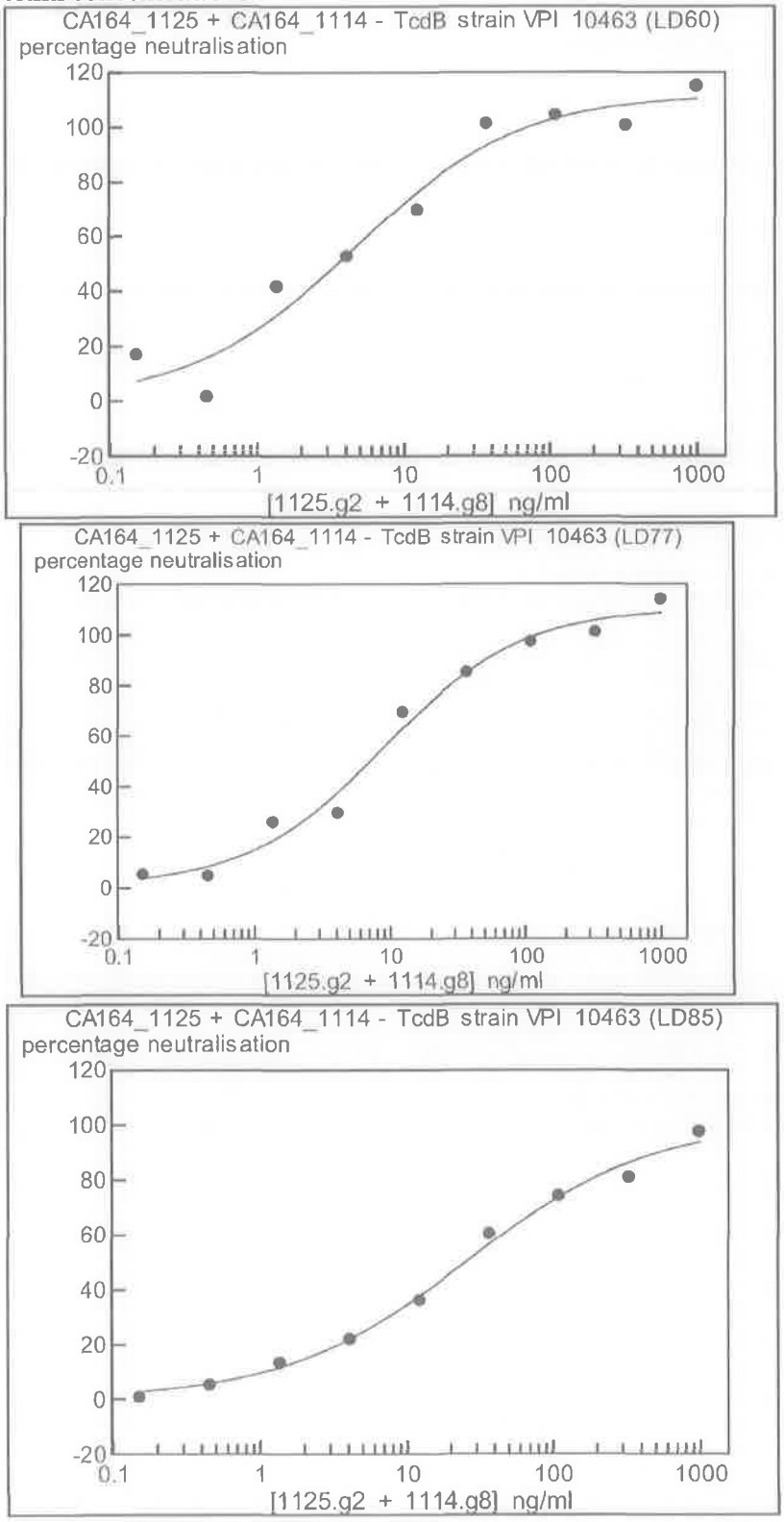


Figure 37 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

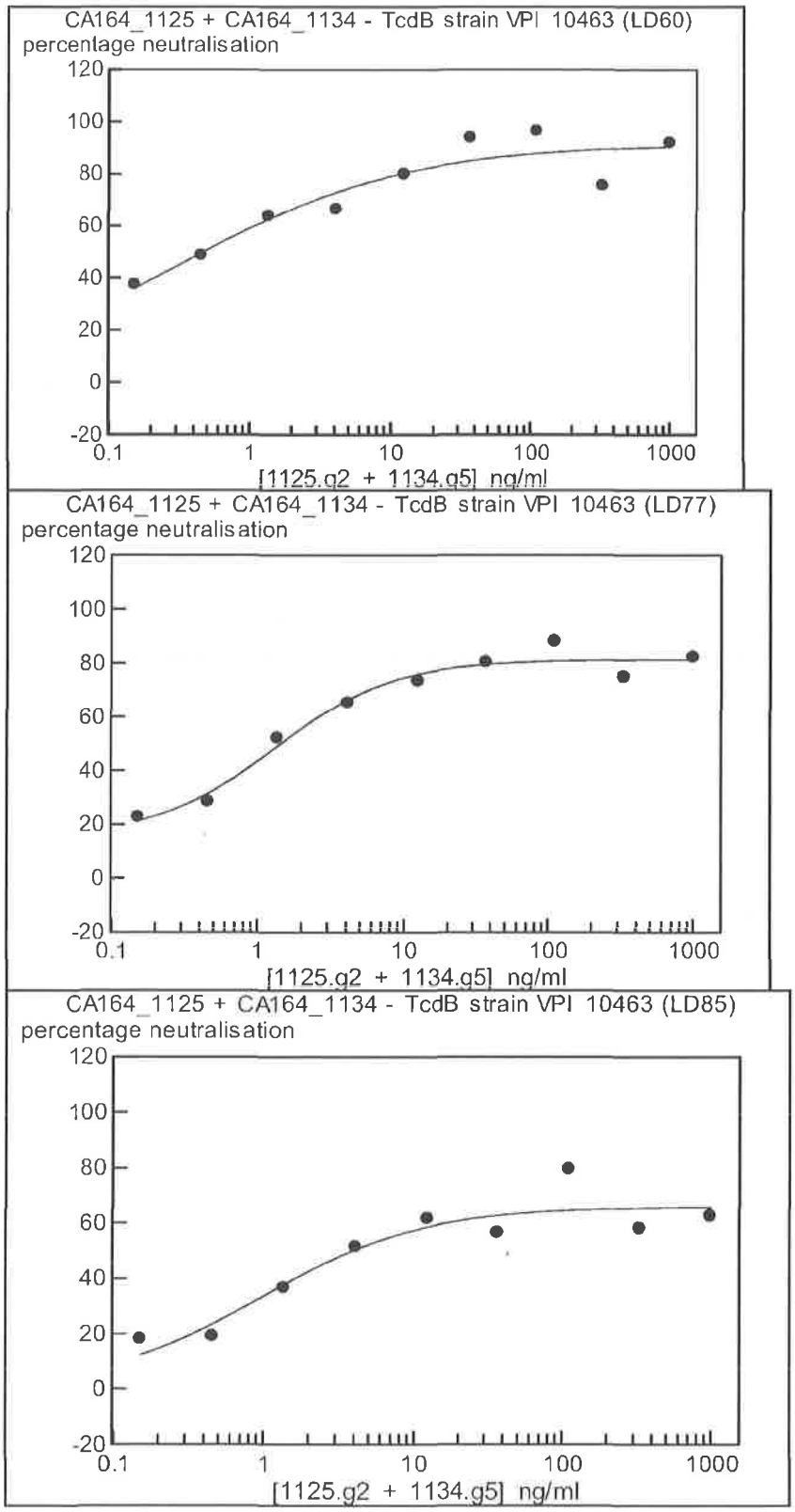


Figure 38 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

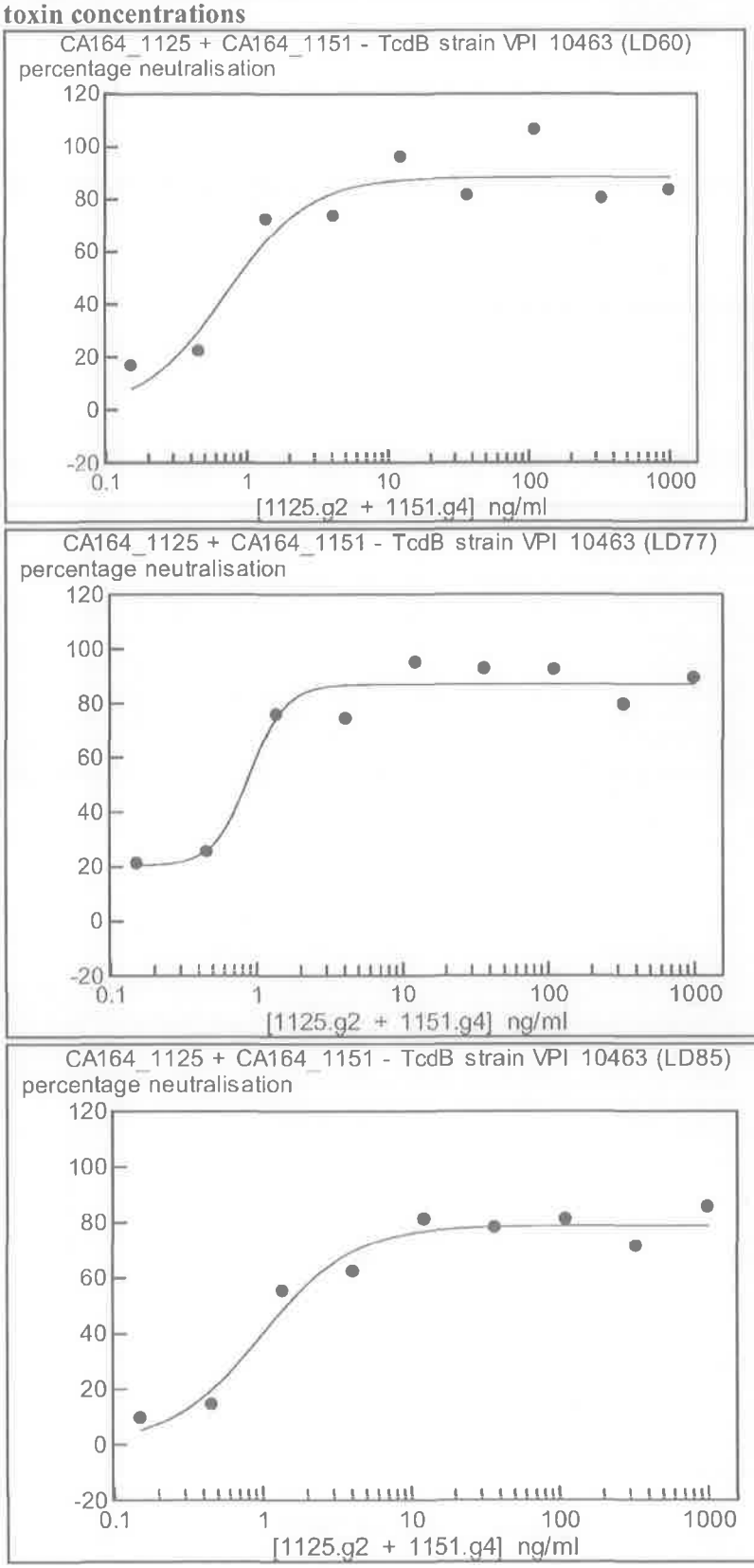


Figure 39 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

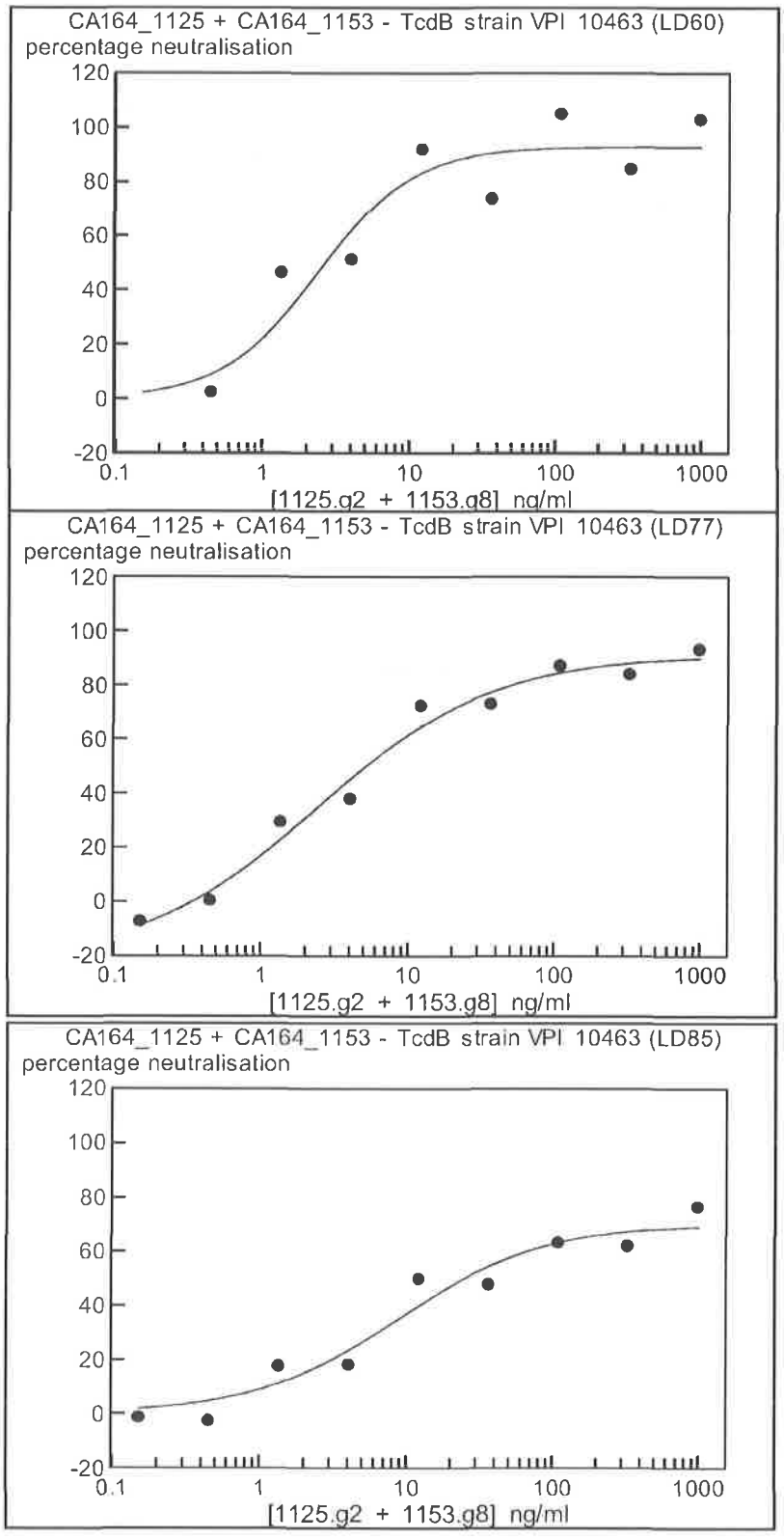


Figure 40 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different toxin concentrations

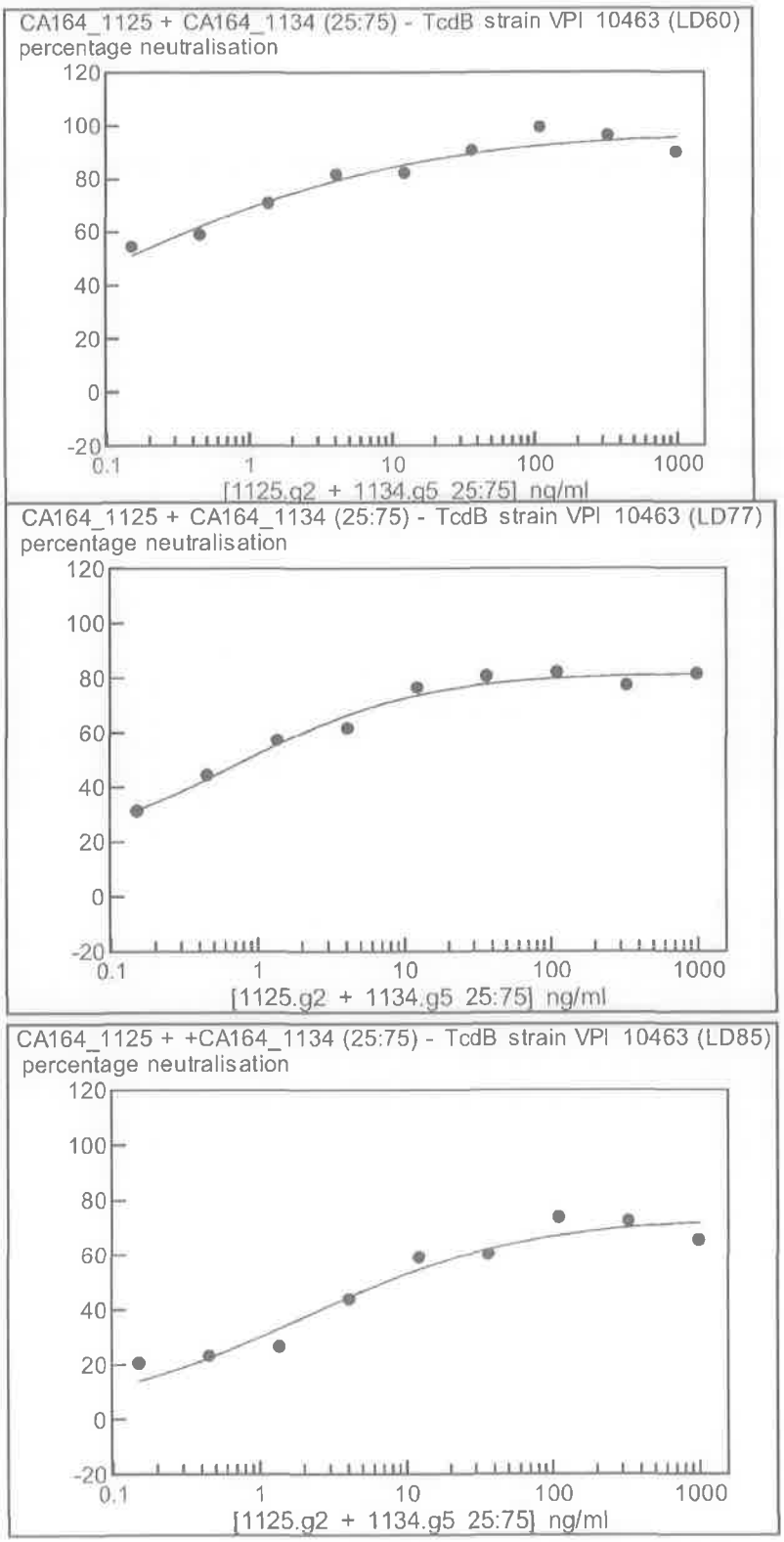


Figure 41 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different relative Mab ratios and different toxin concentrations

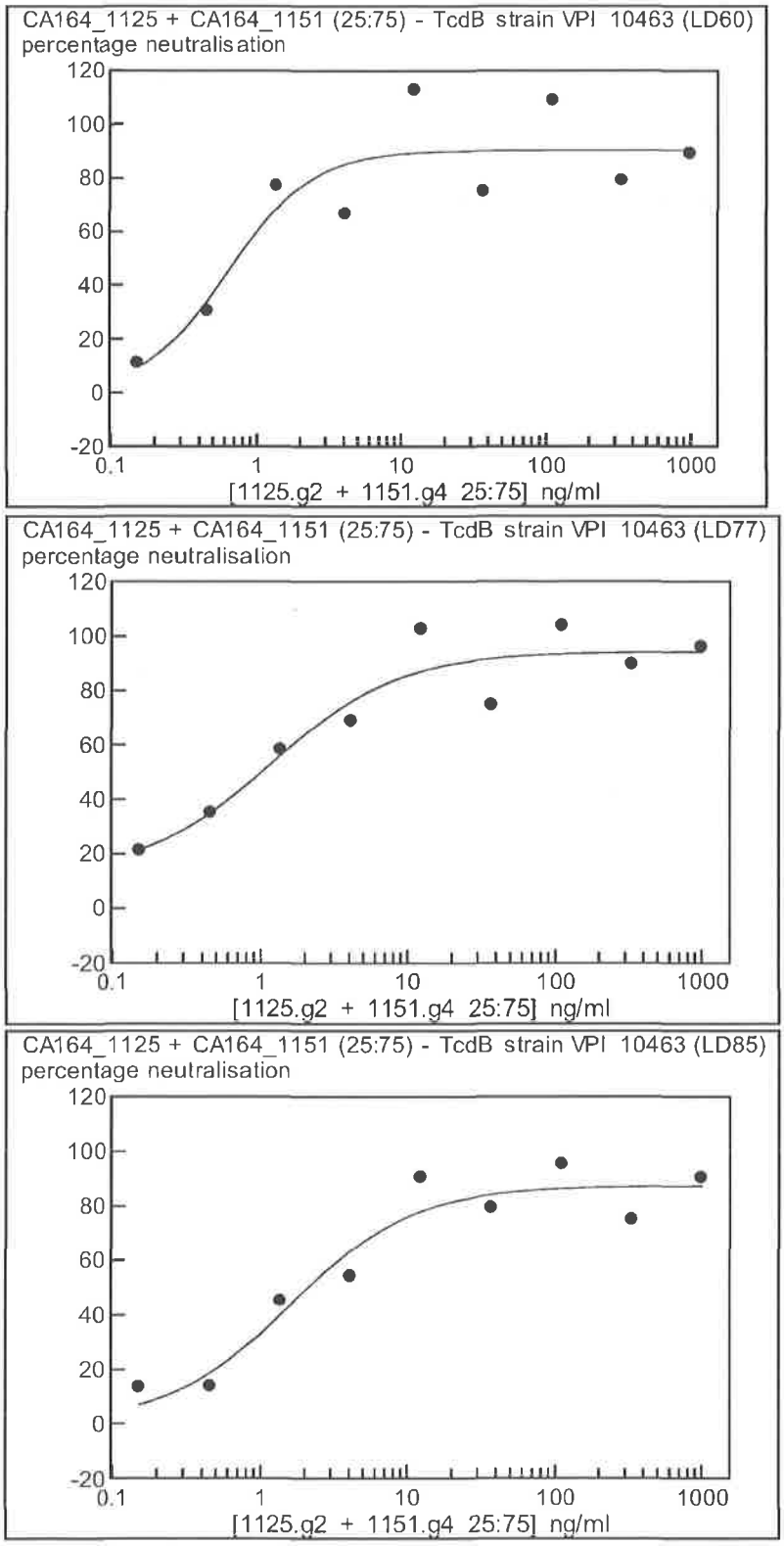


Figure 42 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different relative Mab ratios and different toxin concentrations

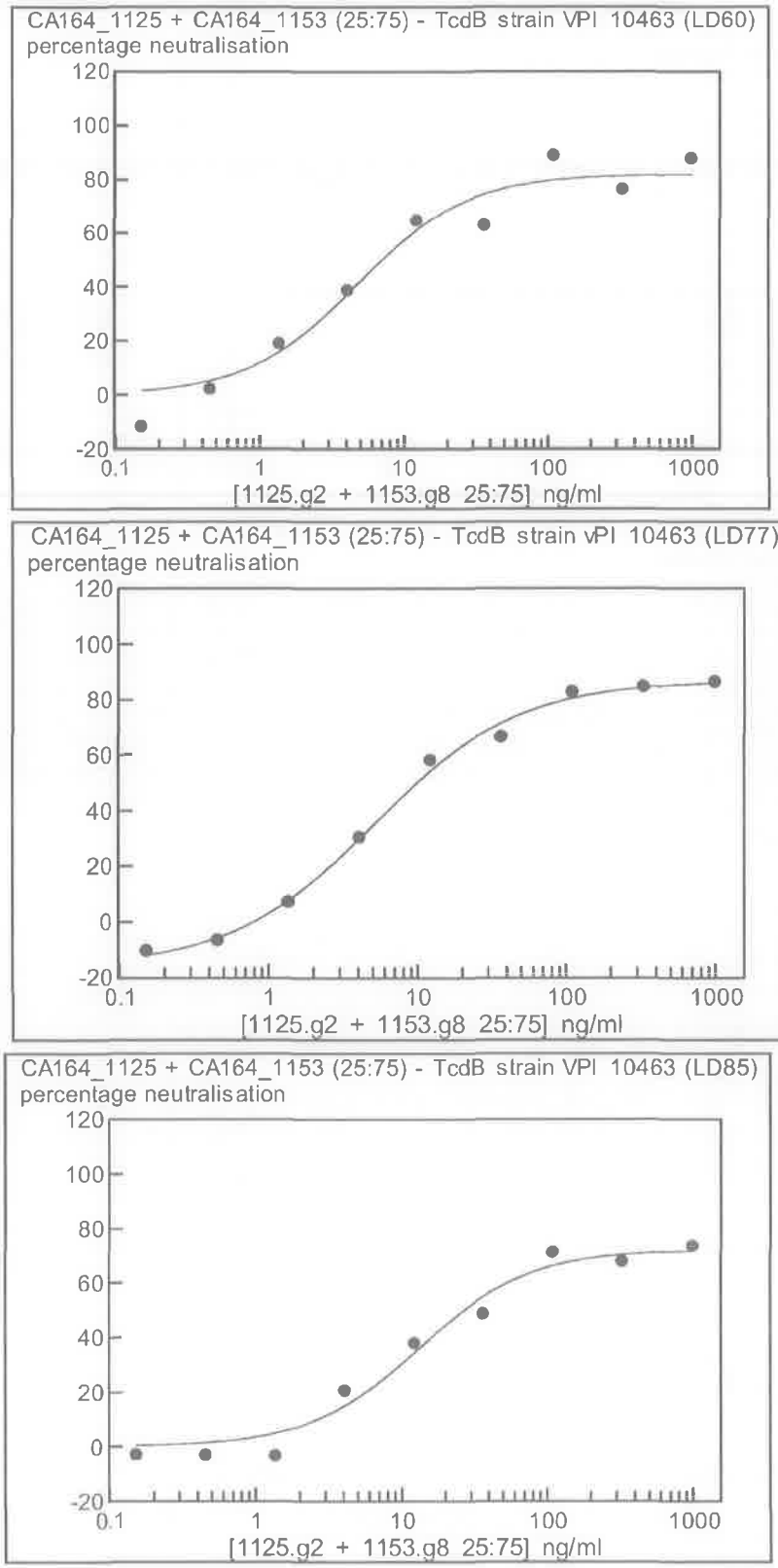


Figure 43 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different relative Mab ratios and different toxin concentrations

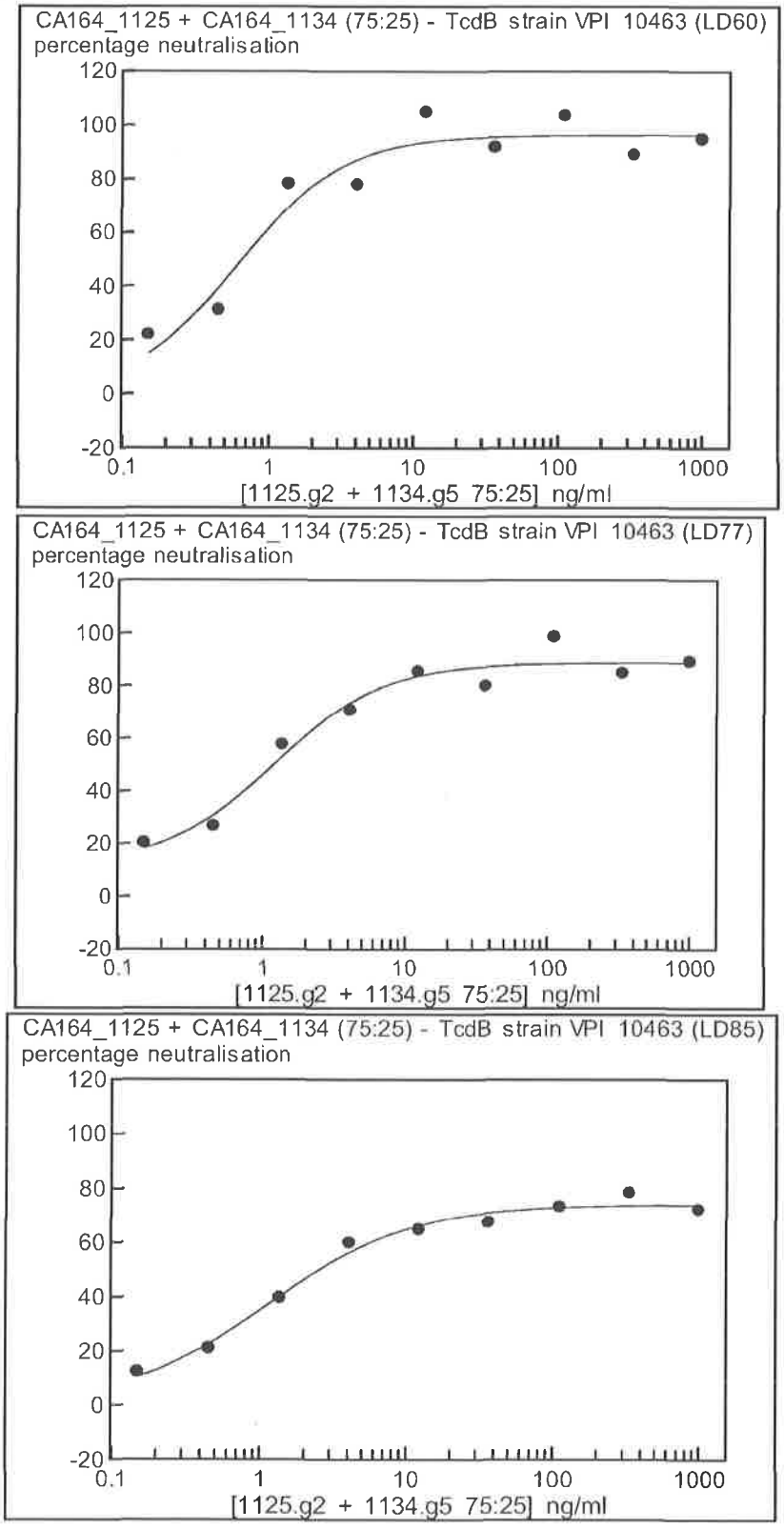


Figure 44 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different relative Mab ratios and different toxin concentrations

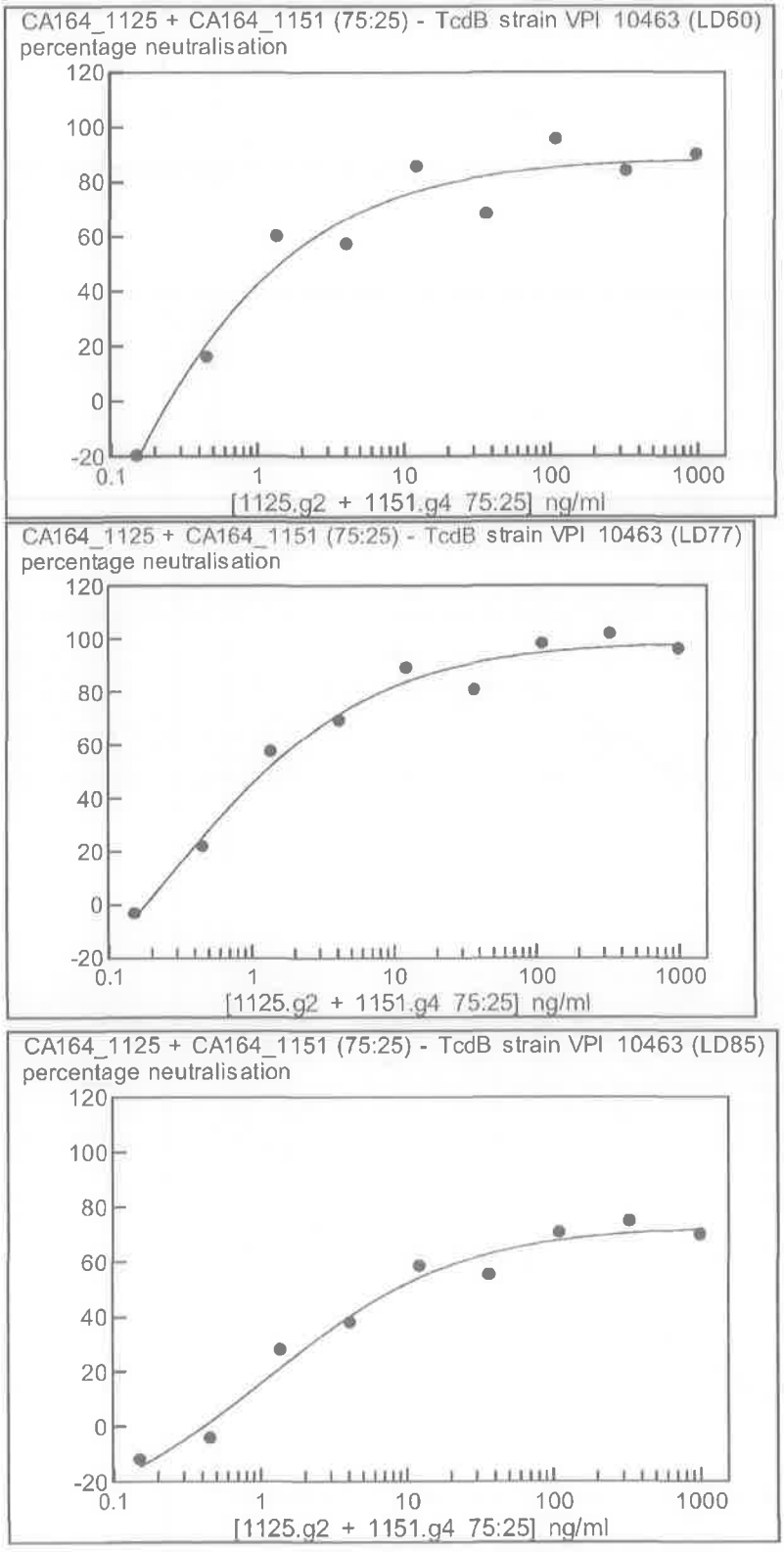
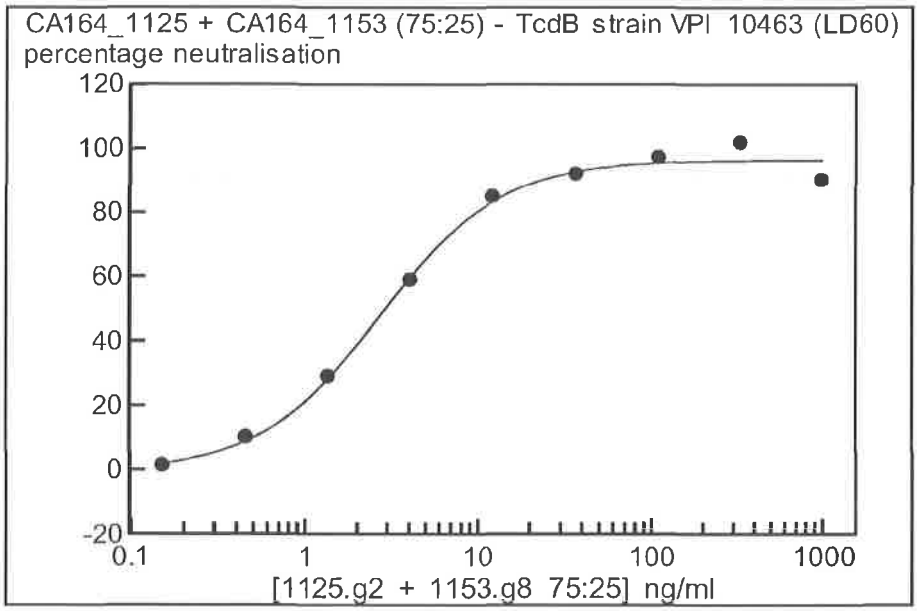


Figure 45 Anti TcdB (Ribotype 003) in-vitro neutralization data for two Mab mixtures at different relative Mab ratios and different toxin concentrations



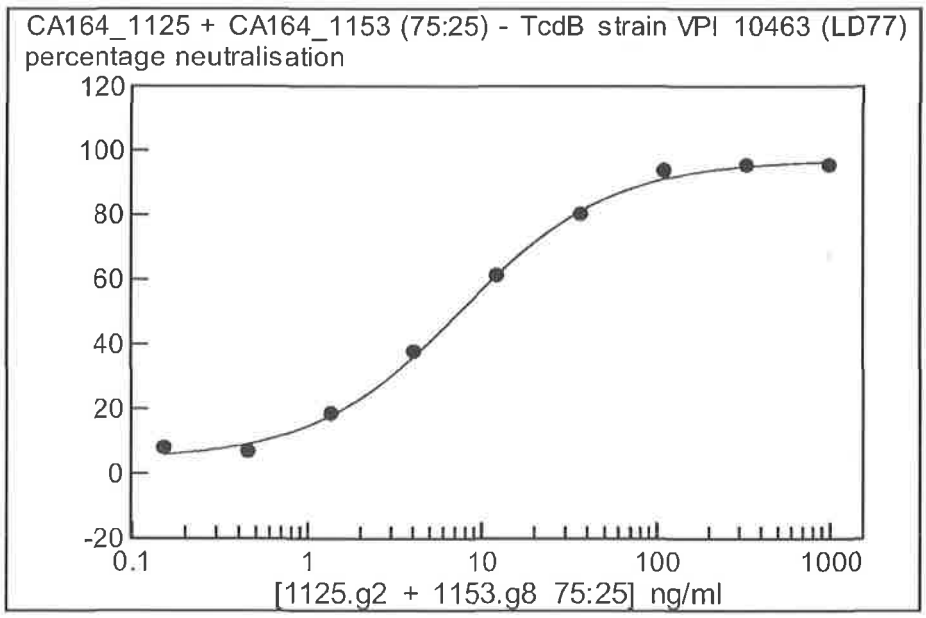
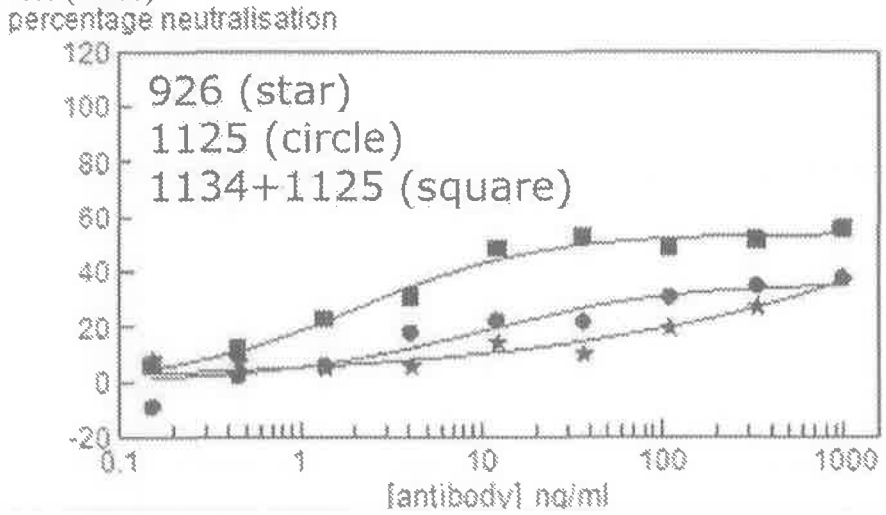
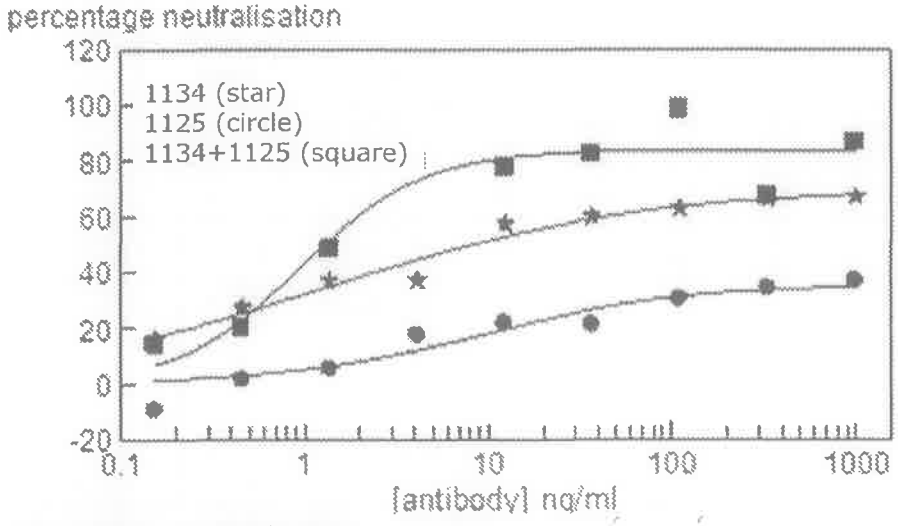


Figure 46 TcdB strain VPI 10463 neutralisation, Antibody singles and pairs, Constant toxin dose (LD80)





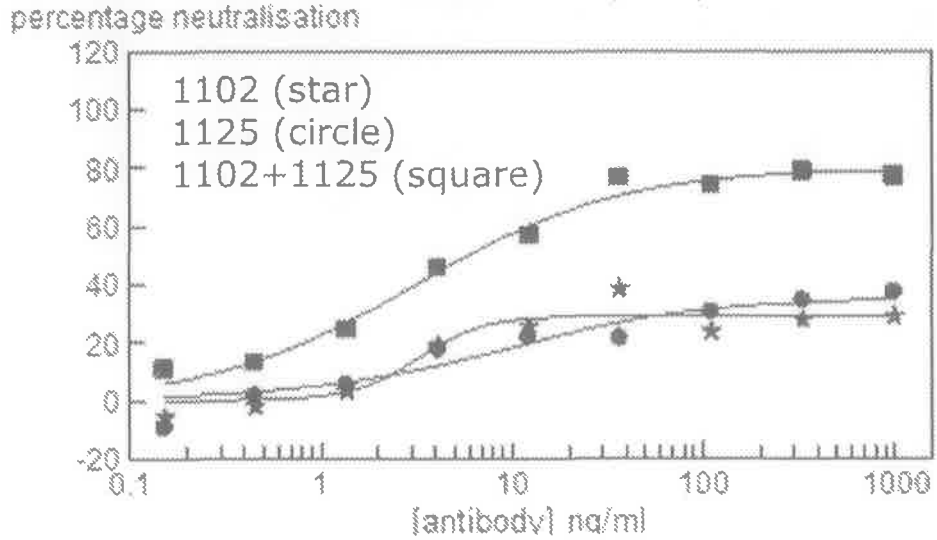
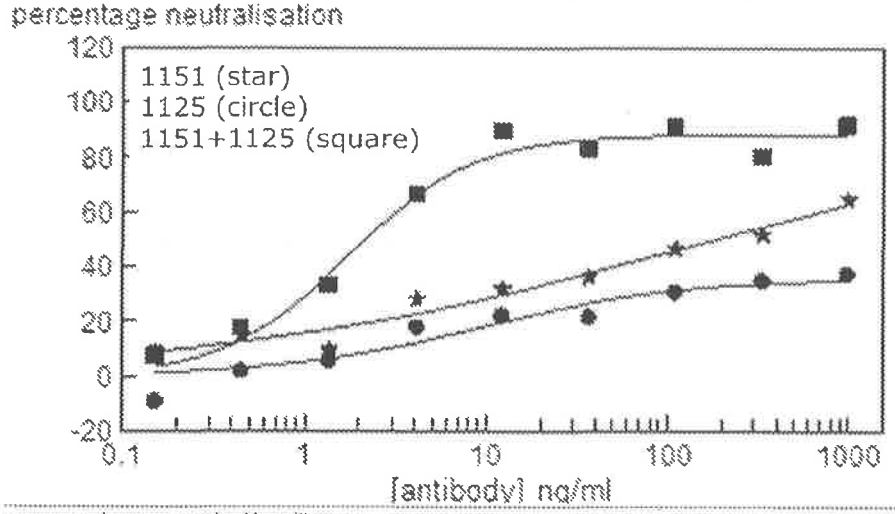
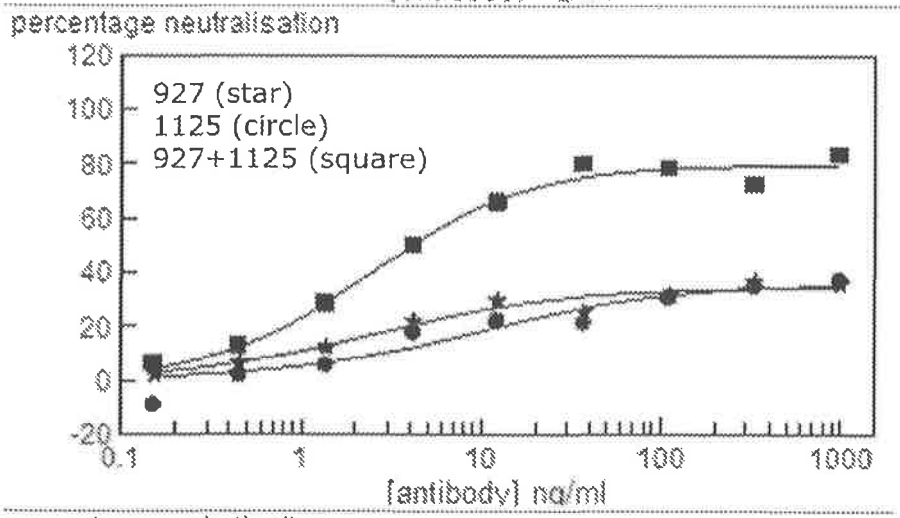


Figure 47 TcdB neutralisation, Antibody singles and pairs, Constant toxin dose (LD80)





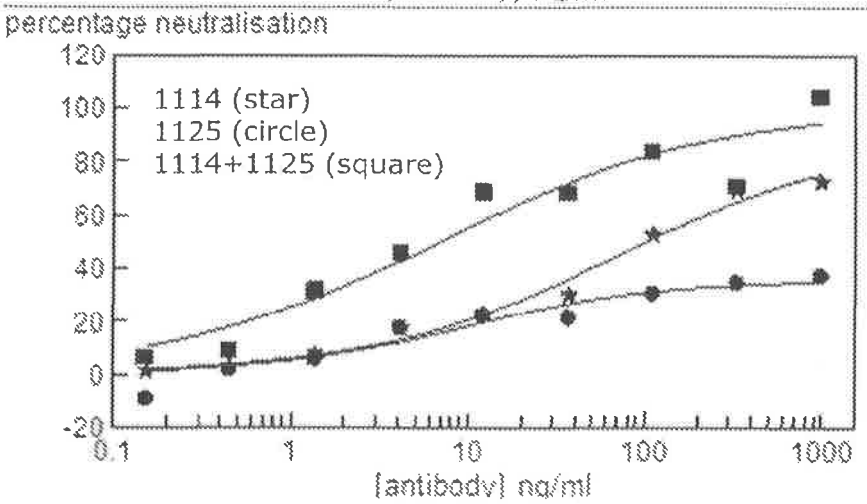


Figure 48 TcdB neutralisation, Antibody singles and pairs, Constant toxin dose (LD80)

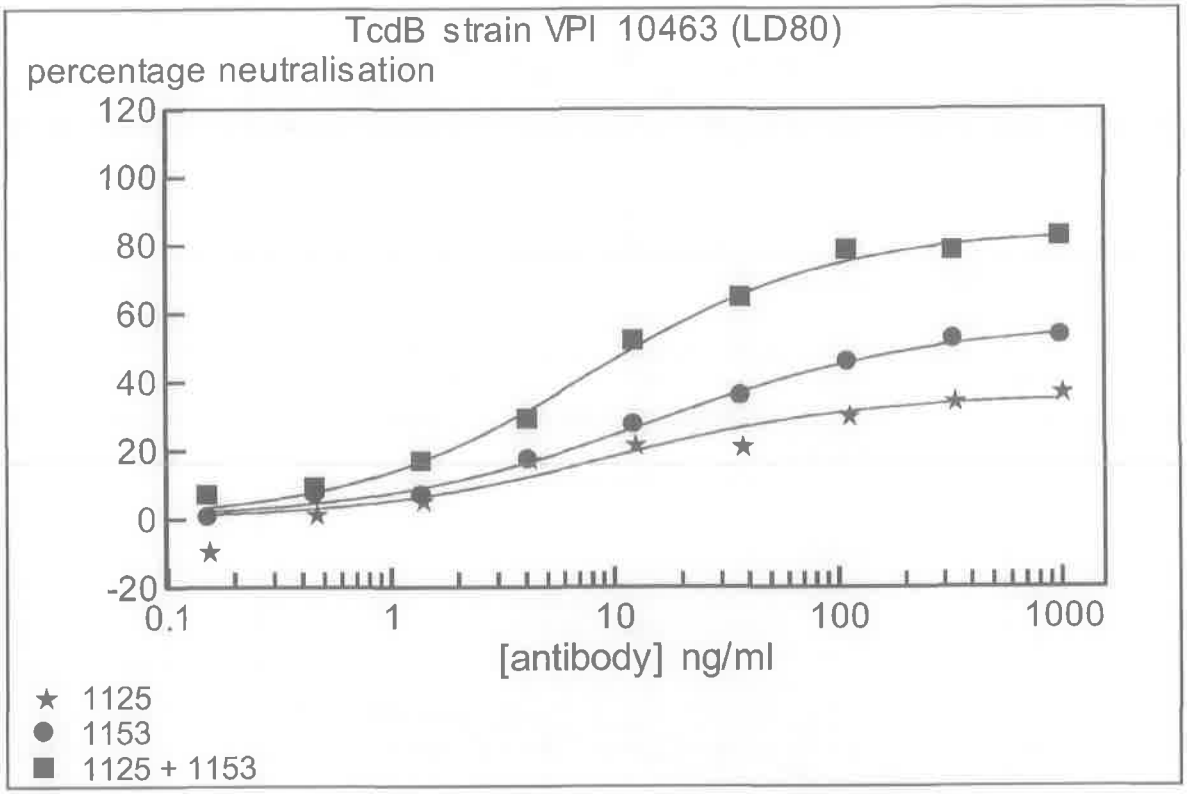


Figure 49 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

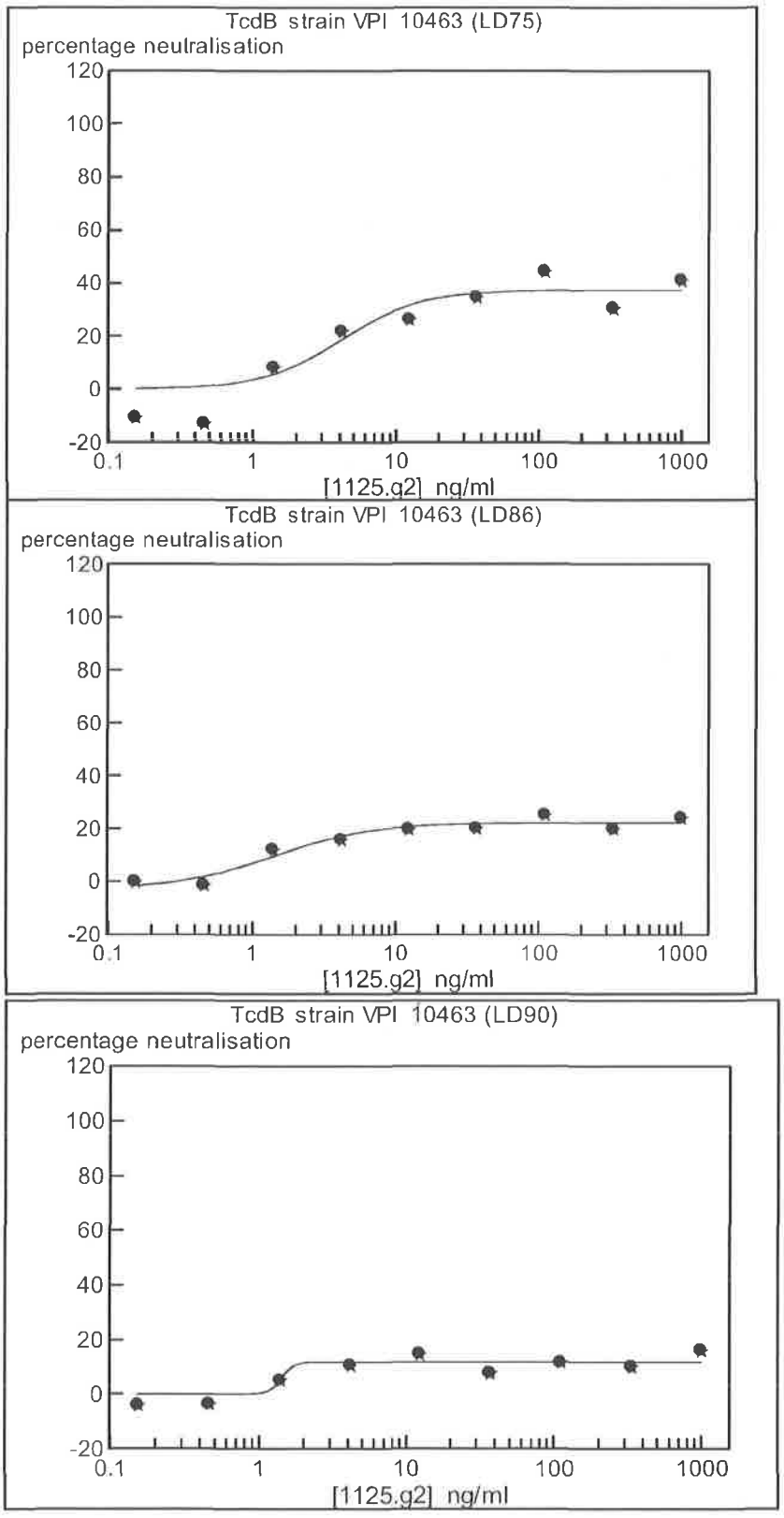


Figure 50 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

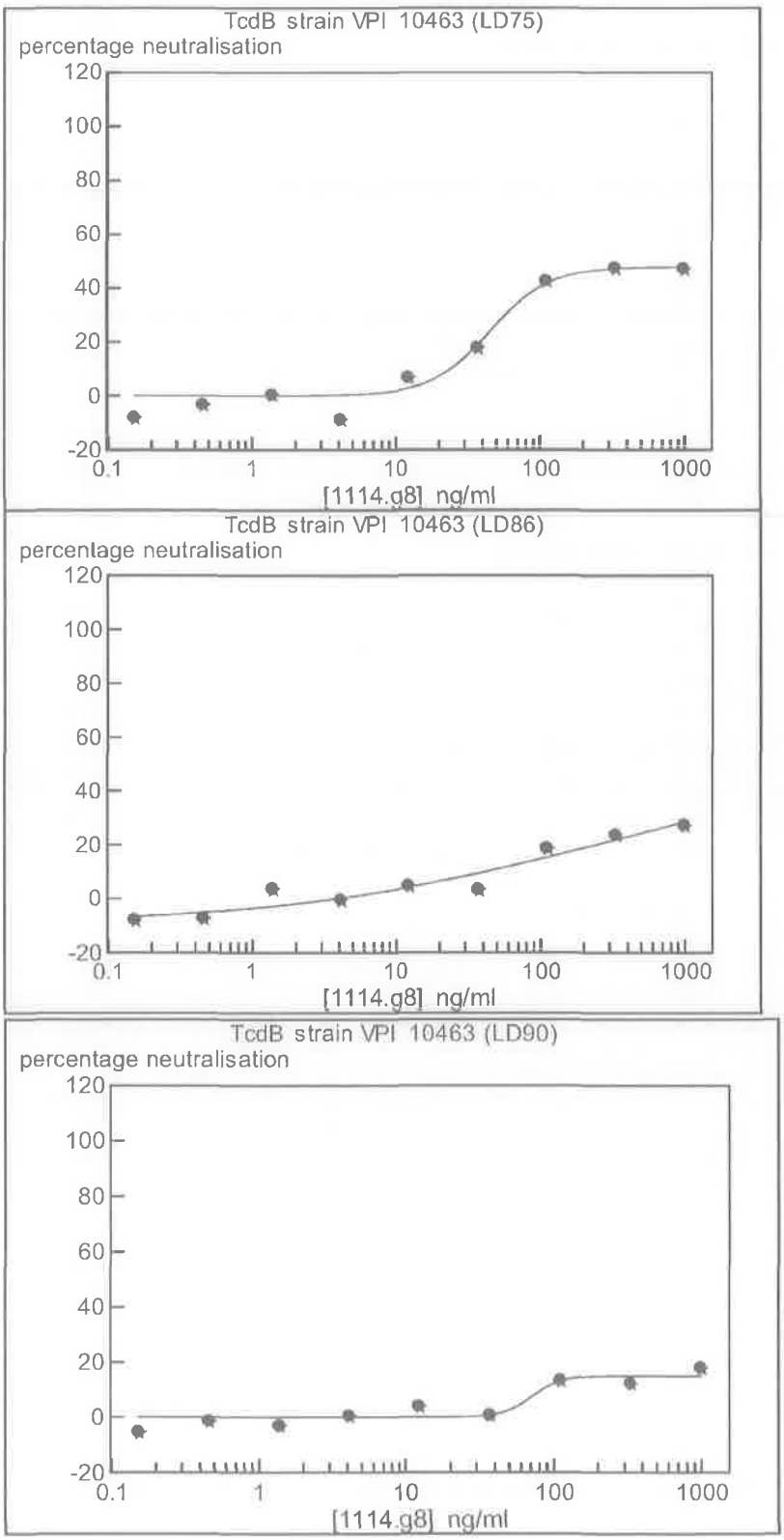


Figure 51 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

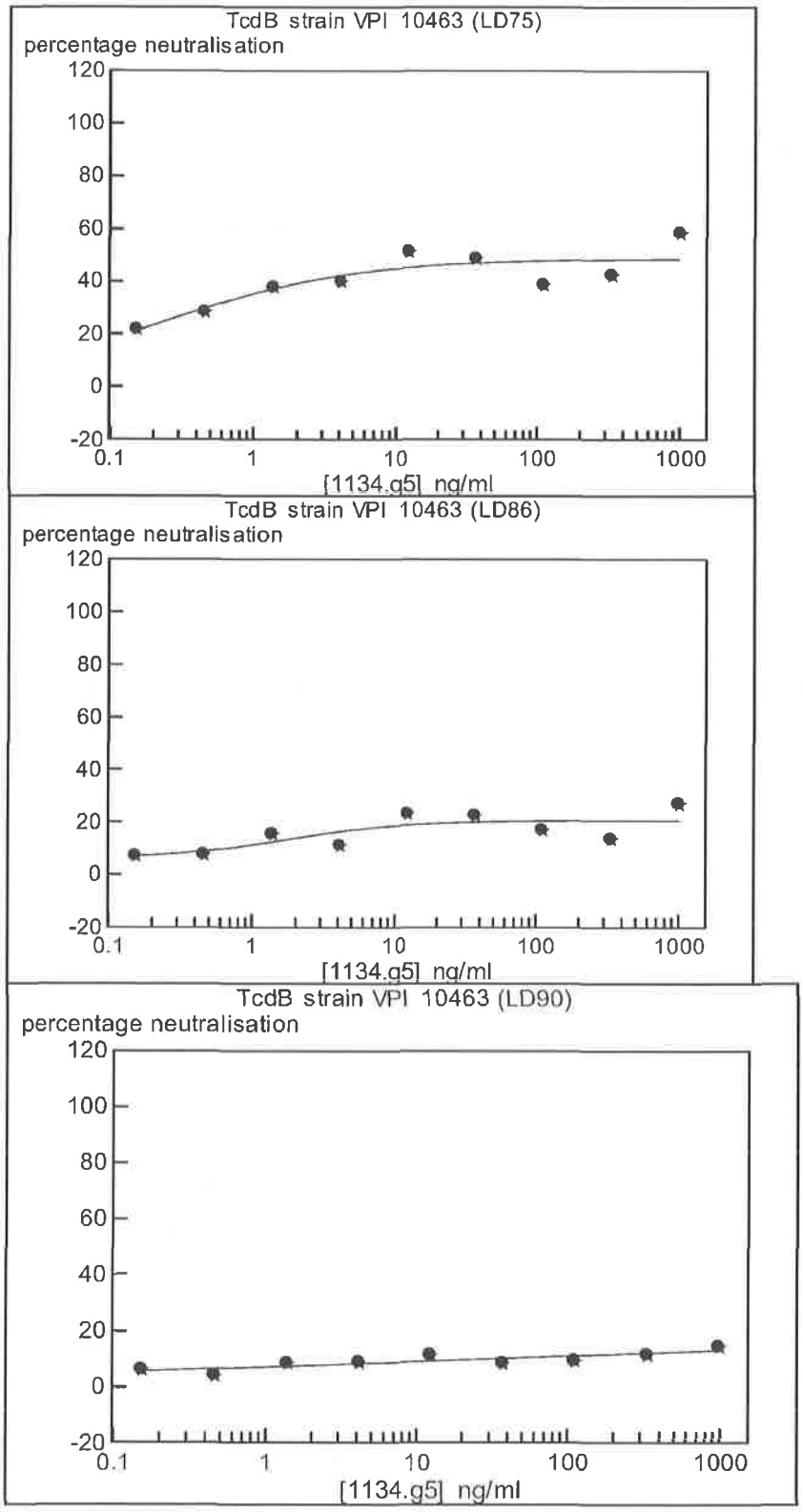


Figure 52 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

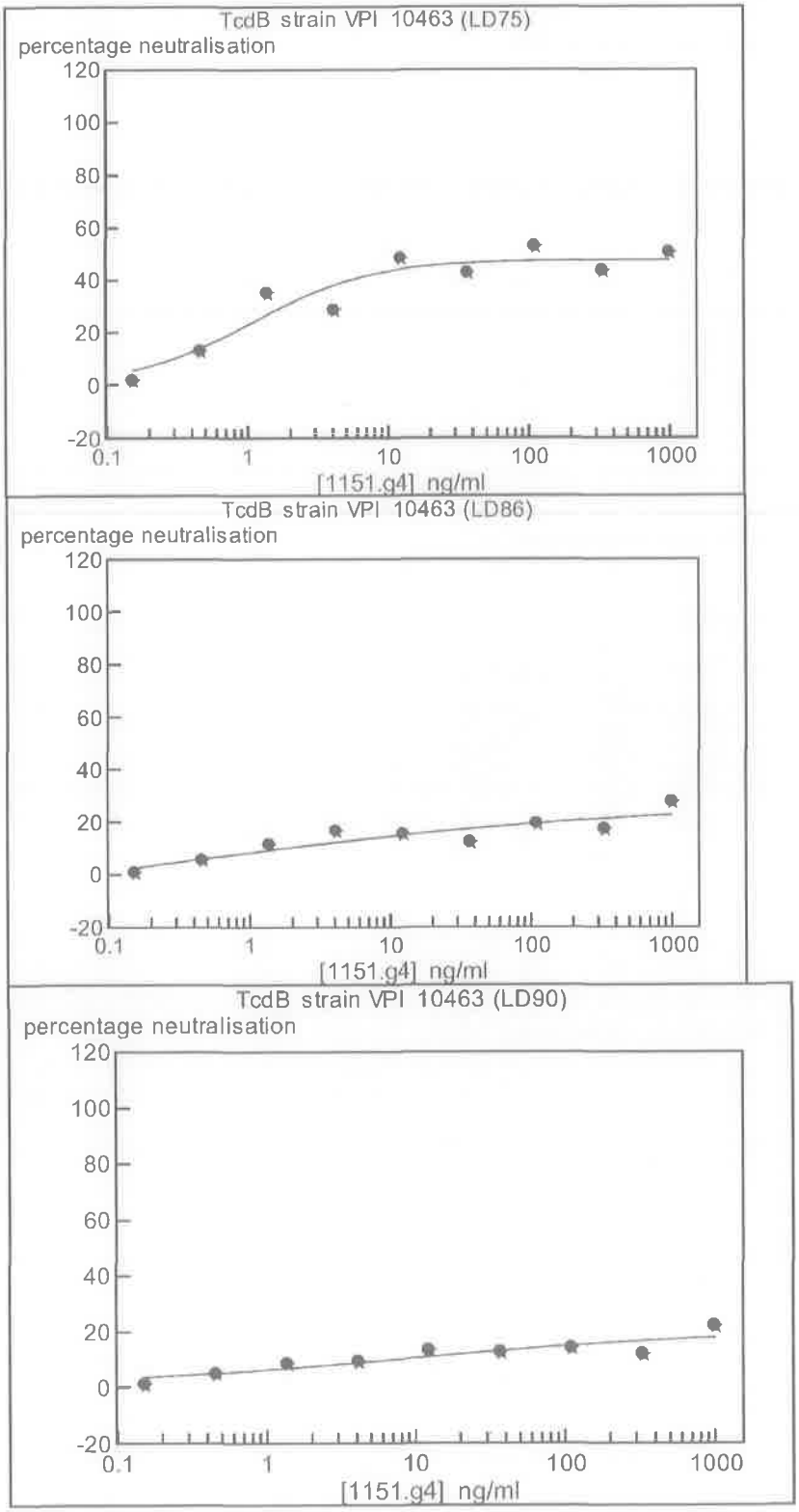


Figure 53 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

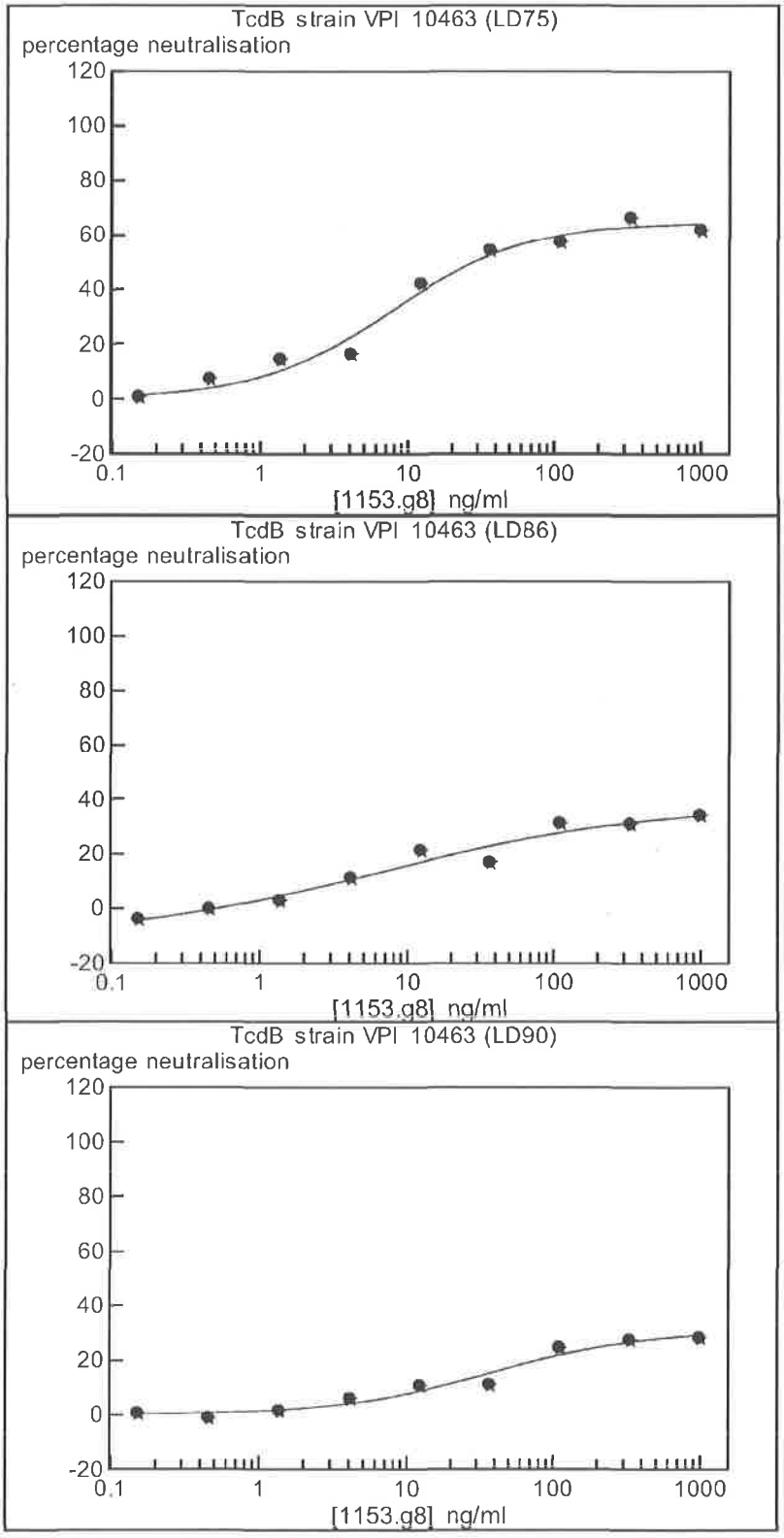


Figure 54 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

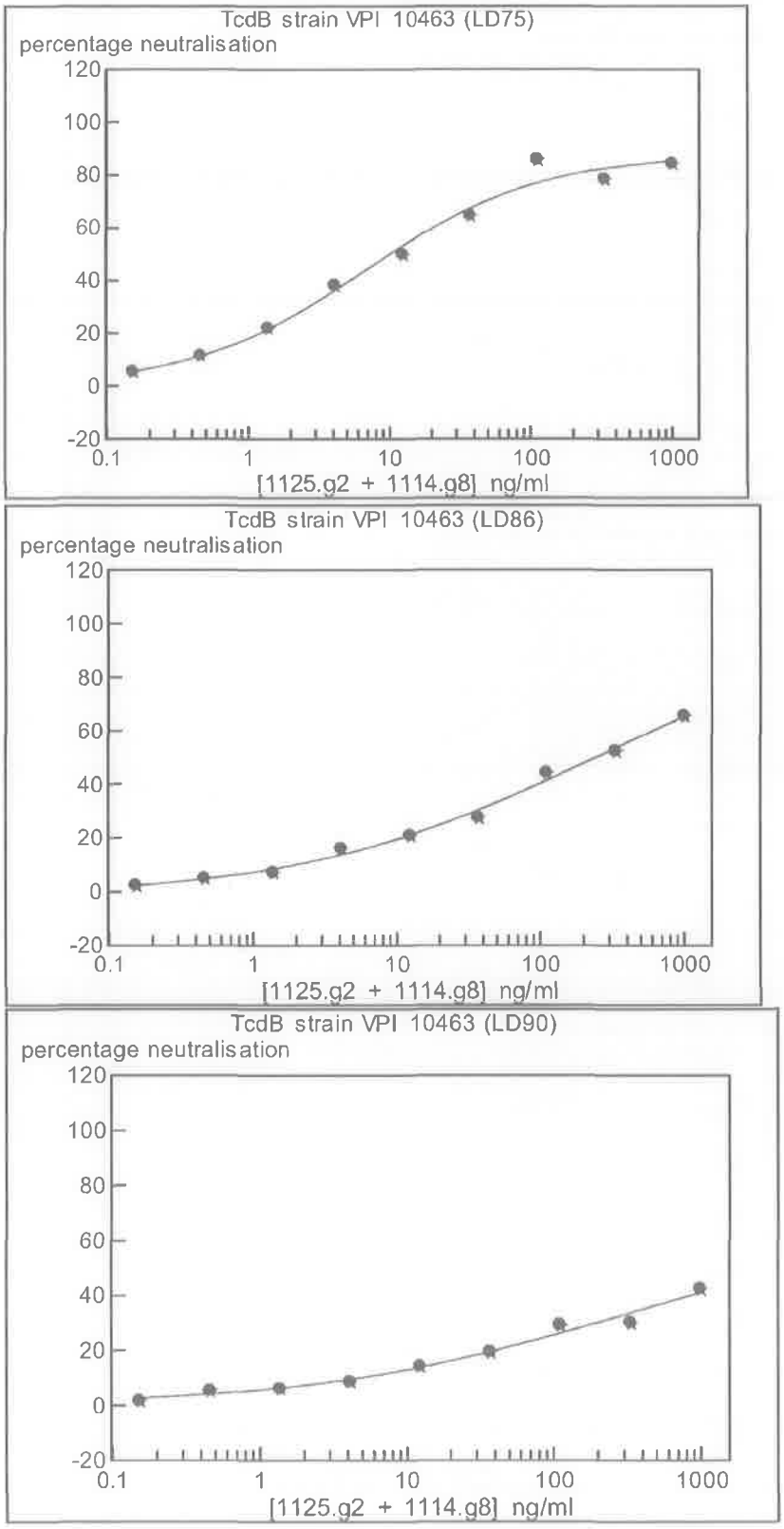


Figure 55 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

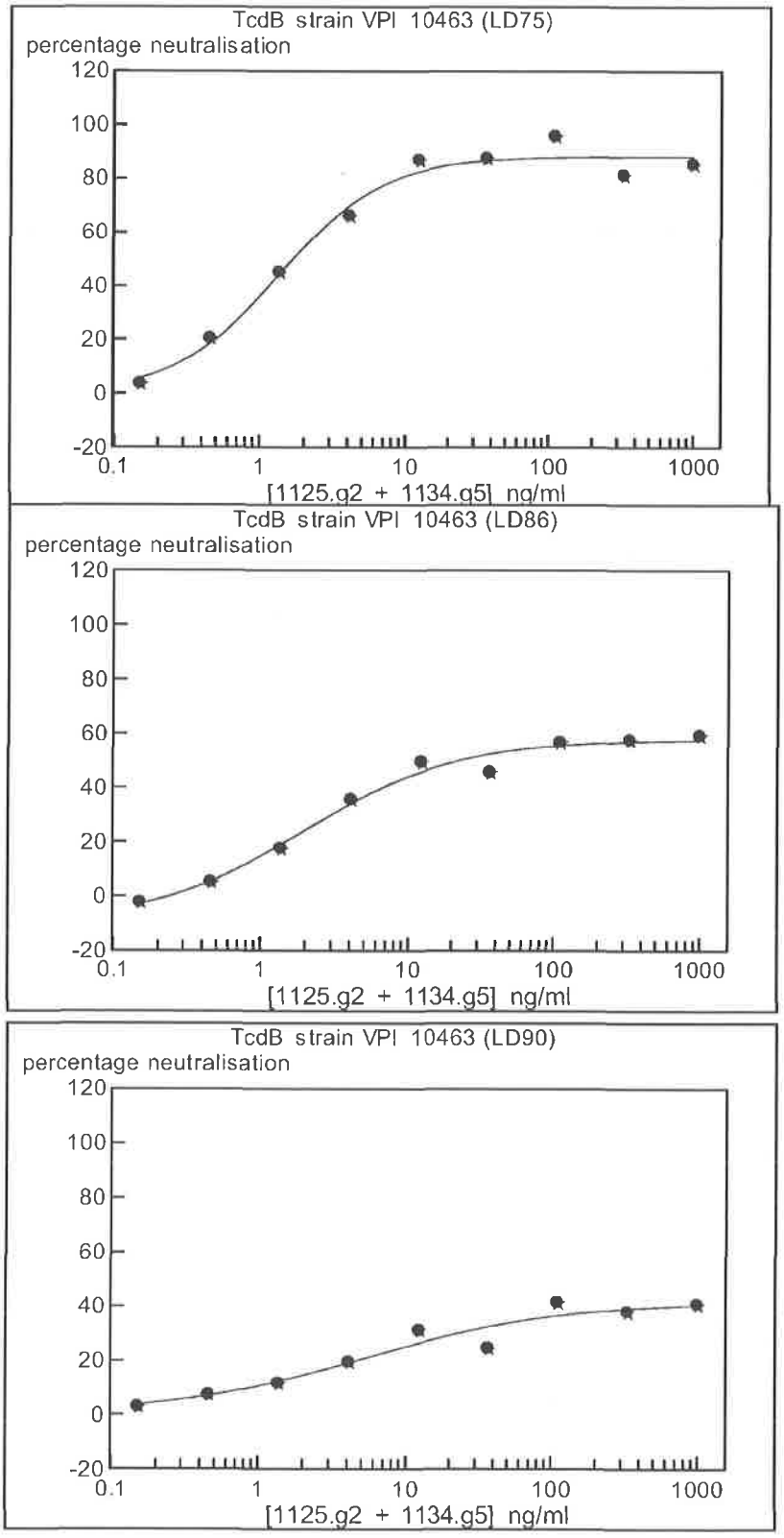


Figure 56 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

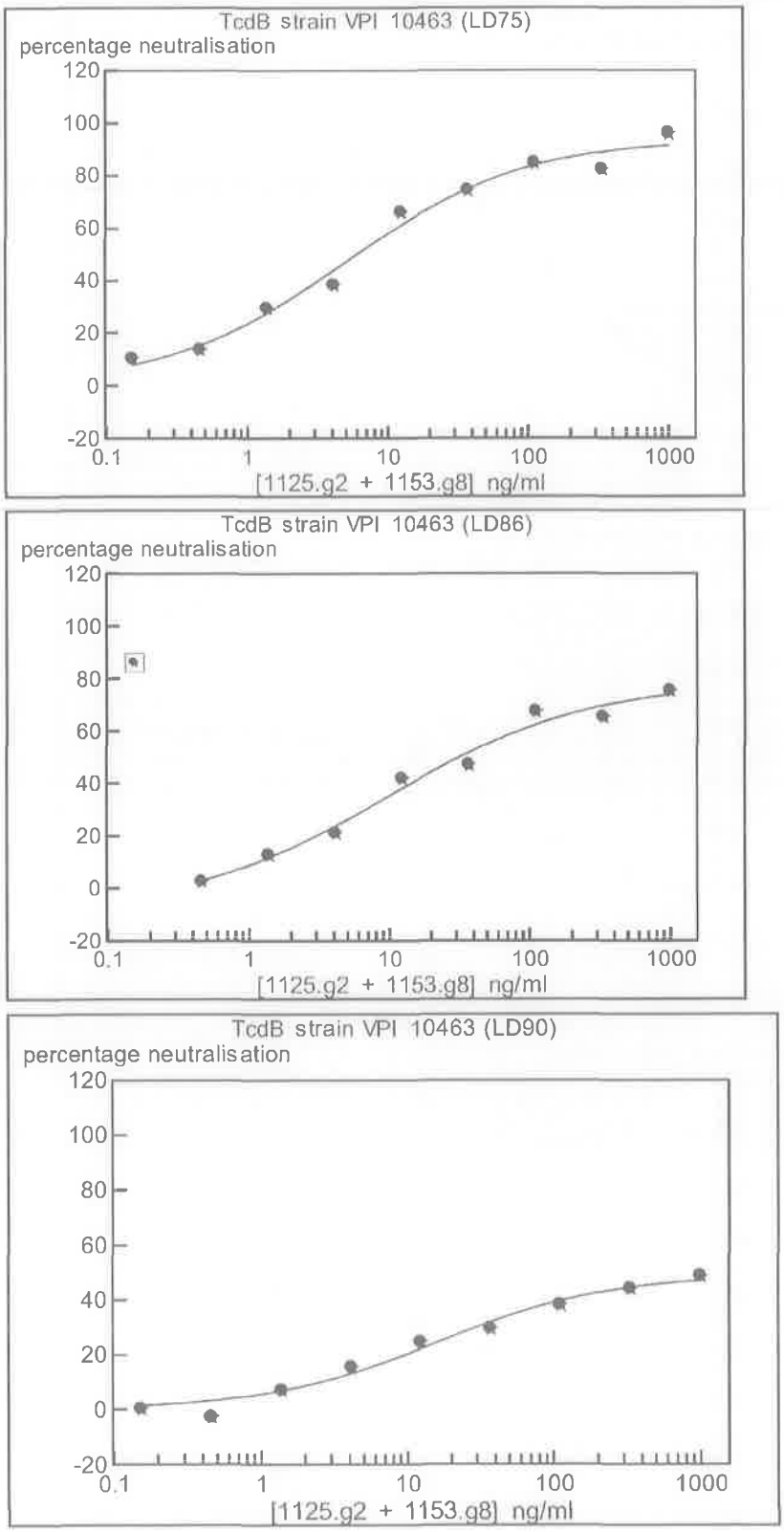


Figure 57 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

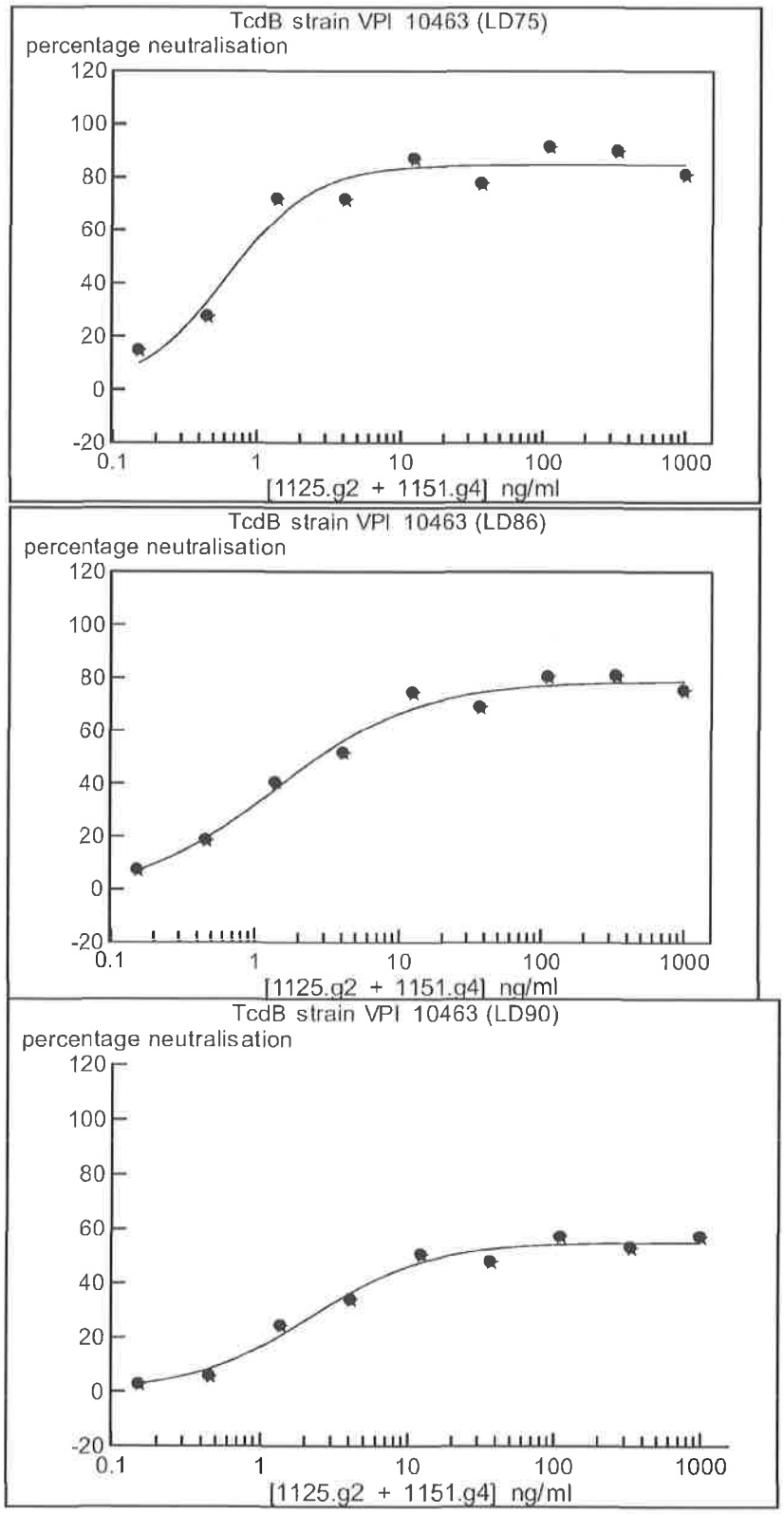


Figure 58 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)

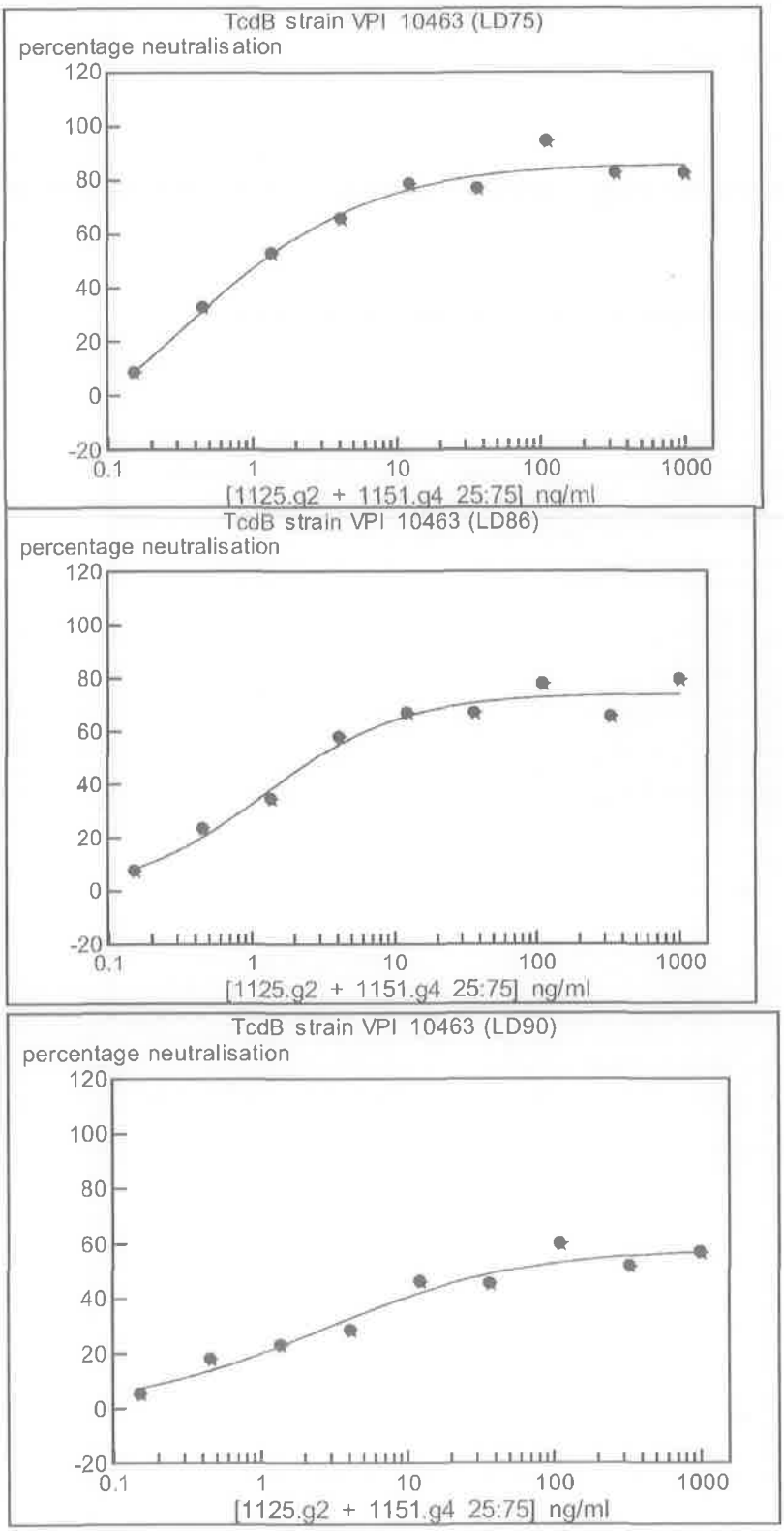
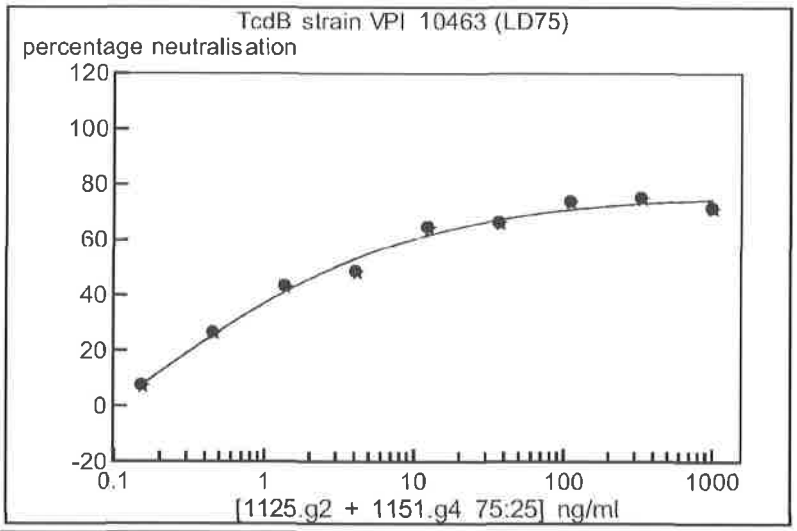
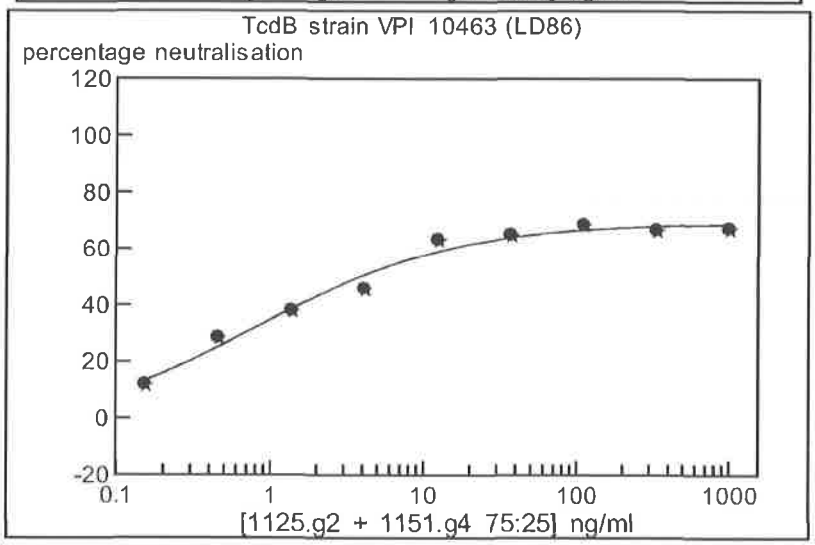


Figure 59 TcdB neutralisation, Antibody singles and pairs, Varying toxin dose (straddling)





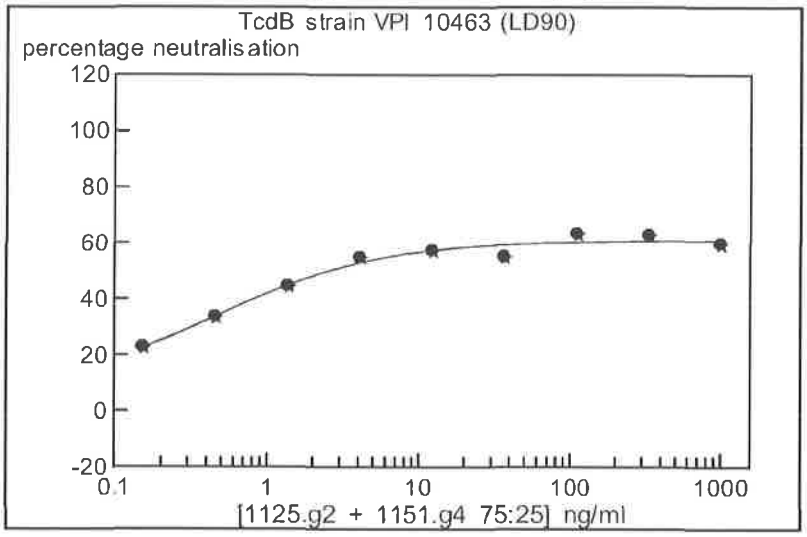


Figure 60 Amino Acid sequence for TcdA SEQ ID NO: 171

MSLISKEELI KLAYSIRPRE NEYKTILTNL DEYNKLTTNN NENKYLQLKK LNESIDVFMN
KYKTSSRNRA LSNLKKDILK EVILIKNSNT SPVEKNLHFV WIGGEVSDIA LEYIKQWADI
NAEYNIKLWY DSEAFLVNTL KKAIVESSTT EALQLLEEEI QNPQFDNMKF YKKRMEFIYD
RQKRFINYYK SQINKPTVPT IDDIIKSHLV SEYNRDETVL ESYRTNSLRK INSNHGIDIR
ANSLFTEQEL LNIYSQELLN RGNLAAASDI VRLLALKNFG GVYLDVDMLP GIHSDLFKTI
SRPSSIGLDR WEMIKLEAIM KYKKYINNYT SENFDKLDQQ LKDNFKLIIE SKSEKSEIFS
KLENLNVSDL EIKIAFALGS VINQALISKQ GSYLTNLVIE QVKNRYQFLN QHLNPAIESD
NNFTDTTKIF HDSLFNSATA ENSMFLTKIA PYLQVGFMPE ARSTISLSGP GAYASAYYDF
INLQENTIEK TLKASDLIEF KFPENNLSQL TEQEINSLWS FDQASAKYQF EKYVRDYTGG
SLSEDNGVDF NKNTALDKNY LLNNKIPSNN VEEAGSKNYV HYIIQLQGDD ISYEATCNLF
SKNPKNSIII QRNMNESAKS YFLSDDGESI LELNKYRIPE RLKNKEKVKV TFIGHGKDEF
NTSEFARLSV DSLSNEISSF LDTIKLDISP KNVEVNLLGC NMFSYDFNVE ETYPGKLLLS
IMDKITSTLP DVNKNSITIG ANQYEVRINS EGRKELLAHS GKWINKEEAI MSDLSSKEYI
FFDSIDNKLK AKSKNIPGLA SISEDIKTLL LDASVSPDTK FILNNLKLNI ESSIGDYIYY
EKLEPVKNII HNSIDDLIDE FNLLENVSDE LYELKKLNNL DEKYLISFED ISKNNSTYSV
RFINKSNGES VYVETEKEIF SKYSEHITKE ISTIKNSIIT DVNGNLLDNI QLDHTSQVNT
LNAAFFIQSL IDYSSNKDVL NDLSTSVKVQ LYAQLFSTGL NTIYDSIQLV NLISNAVNDT

INVLPTITEG IPIVSTILDG INLGAAIKEL LDEHDPLLKK ELEAKVGVLA INMSLSIAAT
VASIVGIGAE VTIFLLPIAG ISAGIPSLVN NELILHDKAT SVVNYFNHLS ESKKYGPLKT
EDDKILVPID DLVISEIDFN NNSIKLGTCN ILAMEGGSGH TVTGNIDHFF SSPSISSHIP
SLSIYSAIGI ETENLDFSKK IMMLPNAPSR VFWWETGAVP GLRSLENDGT RLLDSIRDLY
PGKFYWRFYA FFDYAITTLK PVYEDTNIKI KLDKDTRNFI MPTITTNEIR NKLSYSFDGA
GGTYSLLLSS YPISTNINLS KDDLWIFNID NEVREISIEN GTIKKGKLIK DVLSKIDINK
NKLIIGNQTI DFSGDIDNKD RYIFLTCELD DKISLIIEIN LVAKSYSLLL SGDKNYLISN
LSNTIEKINT LGLDSKNIAY NYTDESNNKY FGAISKTSQK SIIHYKKDSK NILEFYNDST
LEFNSKDFIA EDINVFMKDD INTITGKYYV DNNTDKSIDF SISLVSKNQV KVNGLYLNES
VYSSYLDFVK NSDGHHNTSN FMNLFLDNIS FWKLFGFENI NFVIDKYFTL VGKTNLGYVE
FICDNNKNID IYFGEWKTSS SKSTIFSGNG RNVVVEPIYN PDTGEDISTS LDFSYEPLYG
IDRYINKVLI APDLYTSLIN INTNYYSNEY YPEIIVLNPN TFHKKVNINL DSSSFEYKWS
TEGSDFILVR YLEESNKKIL QKIRIKGILS NTQSFNKMSI DFKDIKKLSL GYIMSNFKSF
NSENELDRDH LGFKIIDNKT YYYDEDSKLV KGLININNSL FYFDPIEFNL VTGWQTINGK
KYYFDINTGA ALTSYKIING KHFYFNNDGV MQLGVFKGPD GFEYFAPANT QNNNIEGQAI
VYQSKFLTLN GKKYYFDNNS KAVTGWRIIN NEKYYFNPNN AIAAVGLQVI DNNKYYFNPD
TAIISKGWQT VNGSRYYFDT DTAIAFNGYK TIDGKHFYFD SDCVVKIGVF STSNGFEYFA
PANTYNNNIE GQAIVYQSKF LTLNGKKYYF DNNSKAVTGL QTIDSKKYYF NTNTAEAATG

WQTIDGKKYY FNTNTAEAAT GWQTIDGKKY YFNTNTAIAS TGYTIINGKH FYFNTDGIMQ
IGVFKGPNGF EYFAPANTDA NNIEGQAILY QNEFLTLNGK KYYFGSDSKA VTGWRIINNK
KYYFNPNNAI AAIHLCTINN DKYYFSYDGI LQNGYITIER NNFYFDANNE SKMVTGVFKG
PNGFEYFAPA NTHNNNIEGQ AIVYQNKFLT LNGKKYYFDN DSKAVTGWQT IDGKKYYFNL
NTAEAATGWQ TIDGKKYYFN LNTAEAATGW QTIDGKKYYF NTNTFIASTG YTSINGKHFY
FNTDGIMQIG VFKGPNGFEY FAPANTDANN IEGQAILYQN KFLTLNGKKY YFGSDSKAVT
GLRTIDGKKY YFNTNTAVAV TGWQTINGKK YYFNTNTSIA STGYTIISGK HFYFNTDGIM
QIGVFKGPDG FEYFAPANTD ANNIEGQAIR YQNRFLYLHD NIYYFGNNSK AATGWVTIDG
NRYYFEPNTA MGANGYKTID NKNFYFRNGL PQIGVFKGSN GFEYFAPANT DANNIEGQAI

RYQNRFLHLL GKIYYFGNNS KAVTGWQTIN GKVYYFMPDT AMAAAGGLFE IDGVIYFFGV
DGVKAPGIYG

Figure 61 Amino Acid sequence for TcdB SEQ ID NO: 172

MSLVNRKQLE KMANVRFRTQ EDEYVAILDA LEEYHNMSEN TVVEKYLKLK DINSLTDIYI
DTYKKSGRNK ALKKFKEYLV TEVLELKNNN LTPVEKNLHF VWIGGQINDT AINYINQWKD
VNSDYNVNVF YDSNAFLINT LKKTVVESAI NDTLESFREN LNDPRFDYNK FFRKRMEIIY
DKQKNFINYY KAQREENPEL IIDDIVKTYL SNEYSKEIDE LNTYIEESLN KITQNSGNDV
RNFEEFKNGE SFNLYEQELV ERWNLAAASD ILRISALKEI GGMYLDVDML PGIQPDLFES
IEKPSSVTVD FWEMTKLEAI MKYKEYIPEY TSEHFDMLDE EVQSSFESVL ASKSDKSEIF
SSLGDMEASP LEVKIAFNSK GIINQGLISV KDSYCSNLIV KQIENRYKIL NNSLNPAISE
DNDFNTTTNT FIDSIMAEAN ADNGRFMMEL GKYLRVGFFP DVKTTINLSG PEAYAAAYQD
LLMFKEGSMN IHLIEADLRN FEISKTNISQ STEQEMASLW SFDDARAKAQ FEEYKRNYFE
GSLGEDDNLD FSQNIVVDKE YLLEKISSLA RSSERGYIHY IVQLQGDKIS YEAACNLFAK
TPYDSVLFQK NIEDSEIAYY YNPGDGEIQE IDKYKIPSII SDRPKIKLTF IGHGKDEFNT
DIFAGFDVDS LSTEIEAAID LAKEDISPKS IEINLLGCNM FSYSINVEET YPGKLLLKVK

DKISELMPSI SQDSIIVSAN QYEVRINSEG RRELLDHSGE WINKEESIIK DISSKEYISF
NPKENKITVK SKNLPELSTL LQEIRNNSNS SDIELEEKVM LTECEINVIS NIDTQIVEER
IEEAKNLTSD SINYIKDEFK LIESISDALC DLKQQNELED SHFISFEDIS ETDEGFSIRF
INKETGESIF VETEKTIFSE YANHITEEIS KIKGTIFDTV NGKLVKKVNL DTTHEVNTLN
AAFFIQSLIE YNSSKESLSN LSVAMKVQVY AQLFSTGLNT ITDAAKVVEL VSTALDETID
LLPTLSEGLP IIATIIDGVS LGAAIKELSE TSDPLLRQEI EAKIGIMAVN LTTATTAIIT
SSLGIASGFS ILLVPLAGIS AGIPSLVNNE LVLRDKATKV VDYFKHVSLV ETEGVFTLLD

DKIMMPQDDL VISEIDFNNN SIVLGKCEIW RMEGGSGHTV TDDIDHFFSA PSITYREPHL
SIYDVLEVQK EFLDLSKDLM VLPNAPNRVF AWETGWTPGL RSLENDGTKL LDRIRDNYEG
EFYWRYFAFI ADALITTLKP RYEDTNIRIN LDSNTRSFIV PIITTEYIRE KLSYSFYGSG
GTYALSLSQY NMGINIELSE SDVWIIDVDN VVRDVTIESD KIKKGDLIEG ILSTLSIEEN
KIILNSHEIN FSGEVNGSNG FVSLTFSILE GINAIIEVDL LSKSYKLLIS GELKILMLNS

NHIQQKIDYI GFNSELQKNI PYSFVDSEGK ENGFINGSTK EGLFVSELPD VVLISKVYMD
DSKPSFGYYS NNLKDVKVIT KDNVNILTGY YLKDDIKISL SLTLQDEKTI KLNSVHLDES
GVAEILKFMN RKGNTNTSDS LMSFLESMNI KSIFVNFLQS NIKFILDANF IISGTTSIGQ
FEFICDENDN IQPYFIKFNT LETNYTLYVG NRQNMIVEPN YDLDDSGDIS STVINFSQKY
LYGIDSCVNK VVISPNIYTD EINITPVYET NNTYPEVIVL DANYINEKIN VNINDLSIRY
VWSNDGNDFI LMSTSEENKV SQVKIRFVNV FKDKTLANKL SFNFSDKQDV PVSEIILSFT
PSYYEDGLIG YDLGLVSLYN EKFYINNFGM MVSGLIYIND SLYYFKPPVN NLITGFVTVG
DDKYYFNPIN GGAASIGETI IDDKNYYFNQ SGVLQTGVFS TEDGFKYFAP ANTLDENLEG
EAIDFTGKLI IDENIYYFDD NYRGAVEWKE LDGEMHYFSP ETGKAFKGLN QIGDYKYYFN
SDGVMQKGFV SINDNKHYFD DSGVMKVGYT EIDGKHFYFA ENGEMQIGVF NTEDGFKYFA
HHNEDLGNEE GEEISYSGIL NFNNKIYYFD DSFTAVVGWK DLEDGSKYYF DEDTAEAYIG
LSLINDGQYY FNDDGIMQVG FVTINDKVFY FSDSGIIESG VQNIDDNYFY IDDNGIVQIG
VFDTSDGYKY FAPANTVNDN IYGQAVEYSG LVRVGEDVYY FGETYTIETG WIYDMENESD
KYYFNPETKK ACKGINLIDD IKYYFDEKGI MRTGLISFEN NNYYFNENGE MQFGYINIED
KMFYFGEDGV MQIGVFNTPD GFKYFAHQNT LDENFEGESI NYTGWLDLDE KRYYFTDEYI
AATGSVIIDG EEYYFDPDTA QLVISE

Figure 62 Caco-2 monolayer (Trans-Epithelial Electrical Resistance) data – TcdA

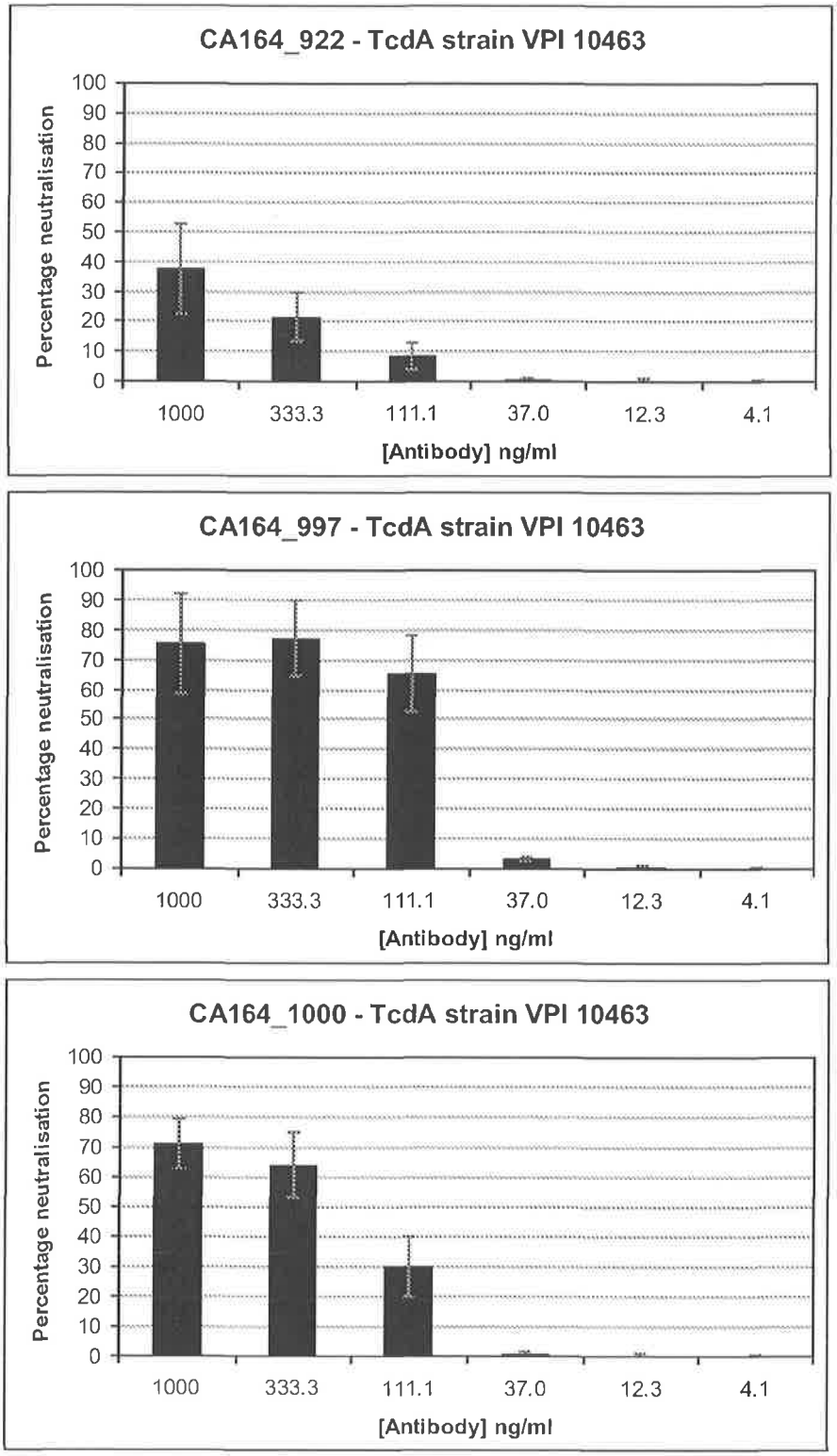


Figure 62A

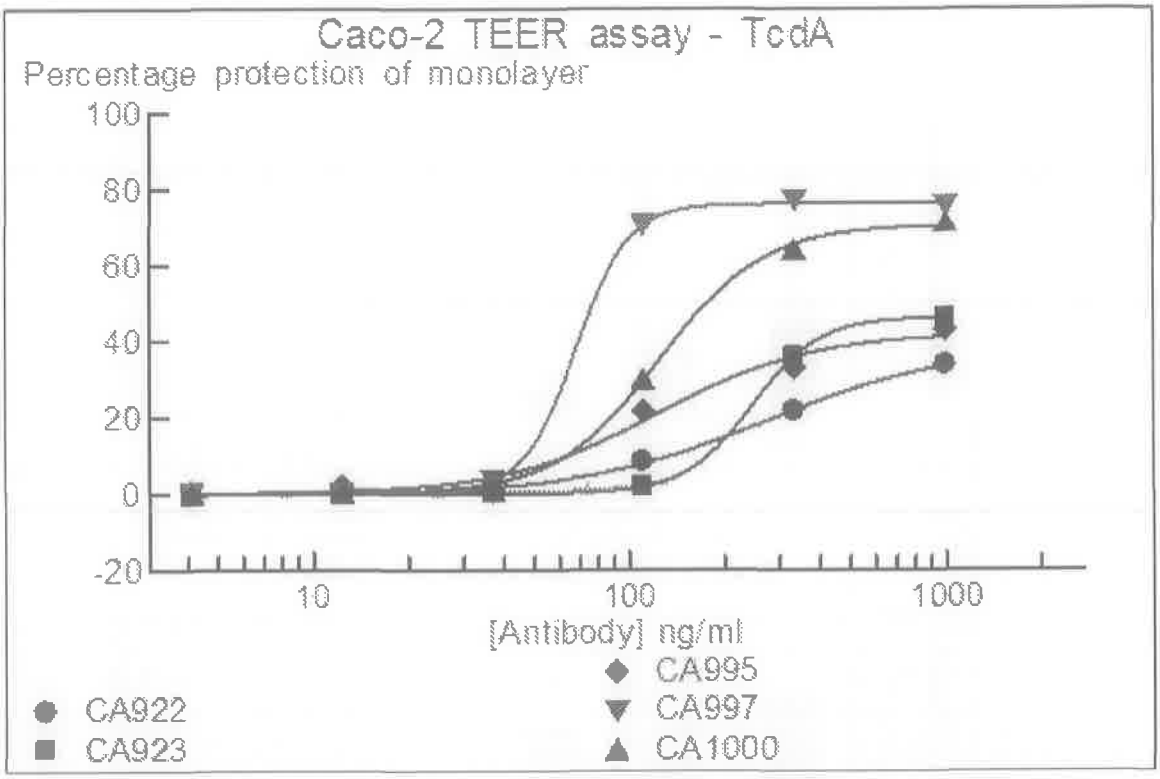
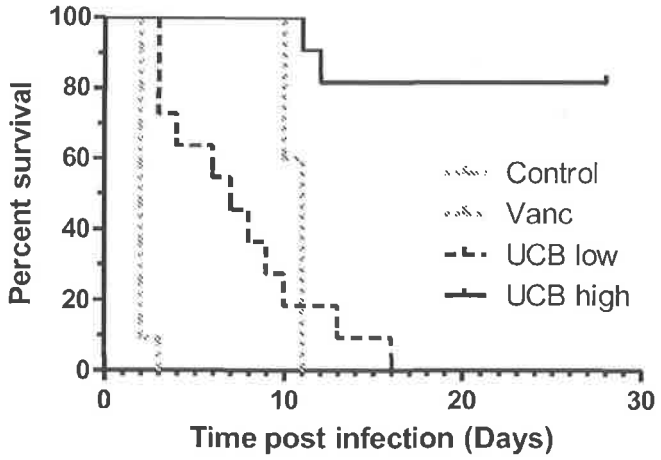

Caco-2 TEER assay - TcdA
Percentage protection of monolayer
100
80
60
40
20
0
-20
10
100
1000
[Antibody] ng/ml
CA922
CA923
CA995
CA997
CA1000

Figure 63

Survival of hamsters after challenge with *Clostridium difficile*. UCB high and low dose 3 Mab mixture: CA997.g1 (50%), CA1125.g2 (25%) and CA1151.g4 (25%) vs controls



P = 0.0001 between both Mab groups and between Mabs and vehicle control.

Figure 64 Hamster body weight changes

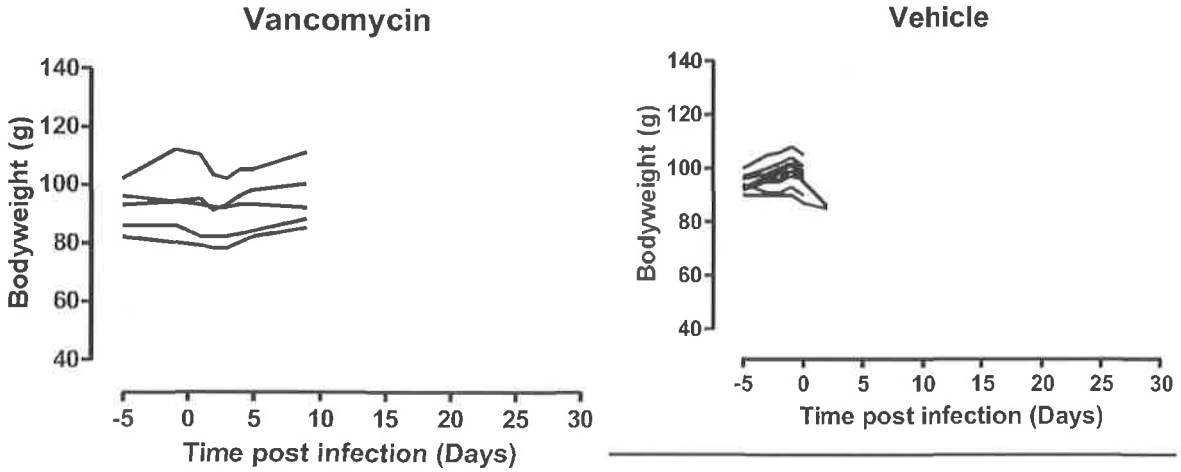


Figure 65

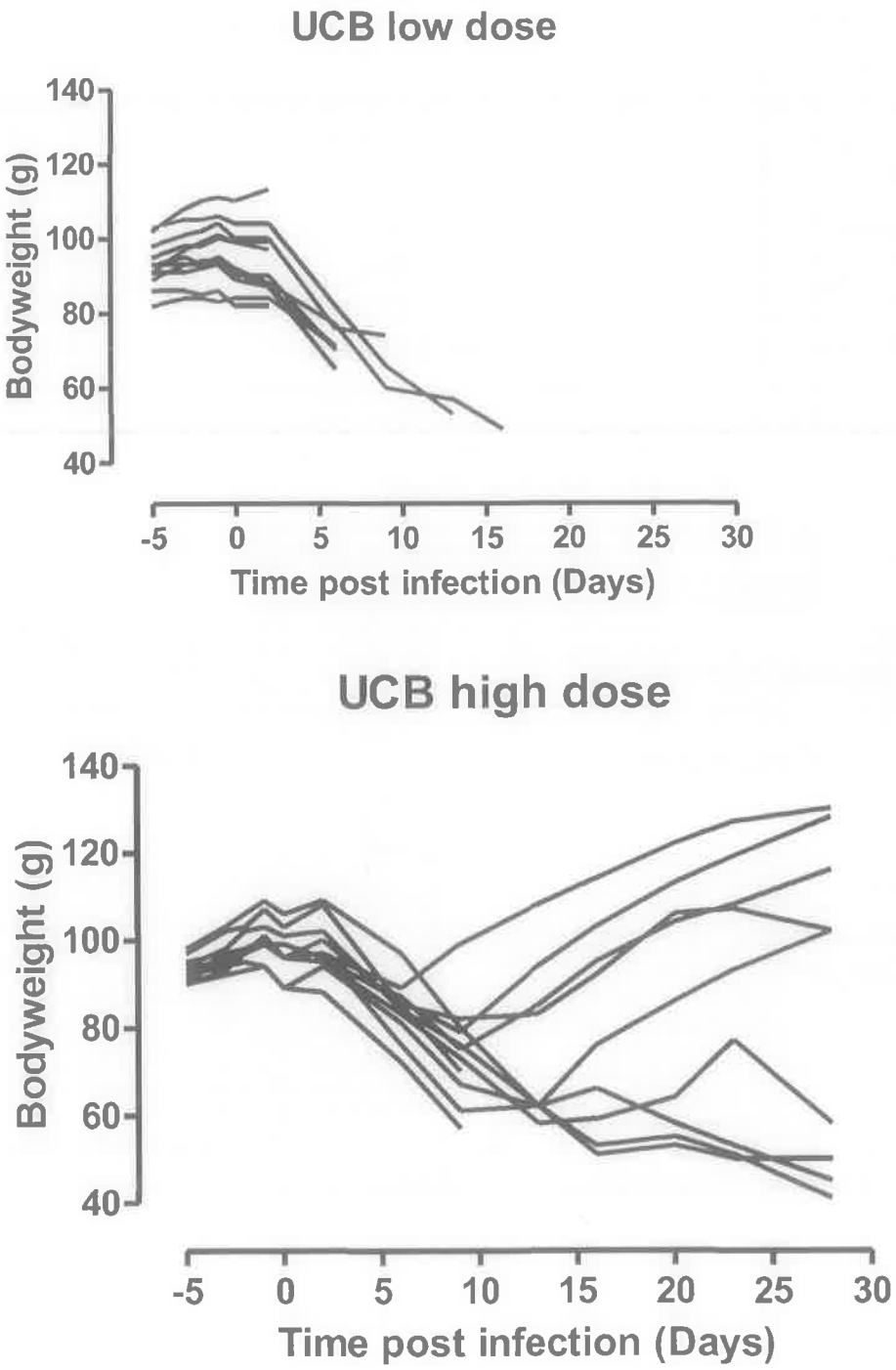
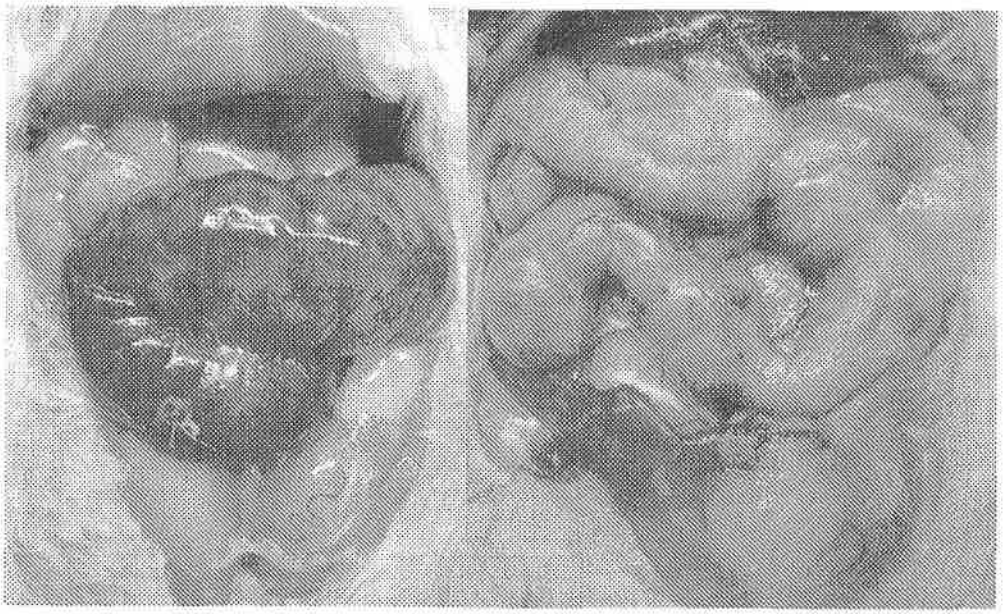

UCB low dose
Bodyweight (g)
140
120
100
80
60
40
-5
0
5
10
15
20
25
30
Time post infection (Days)
UCB high dose
Bodyweight (g)
140
120
100
80
60
40
-5
0
5
10
15
20
25
30
Time post infection (Days)

Figure 66

PBS control UCB high dose



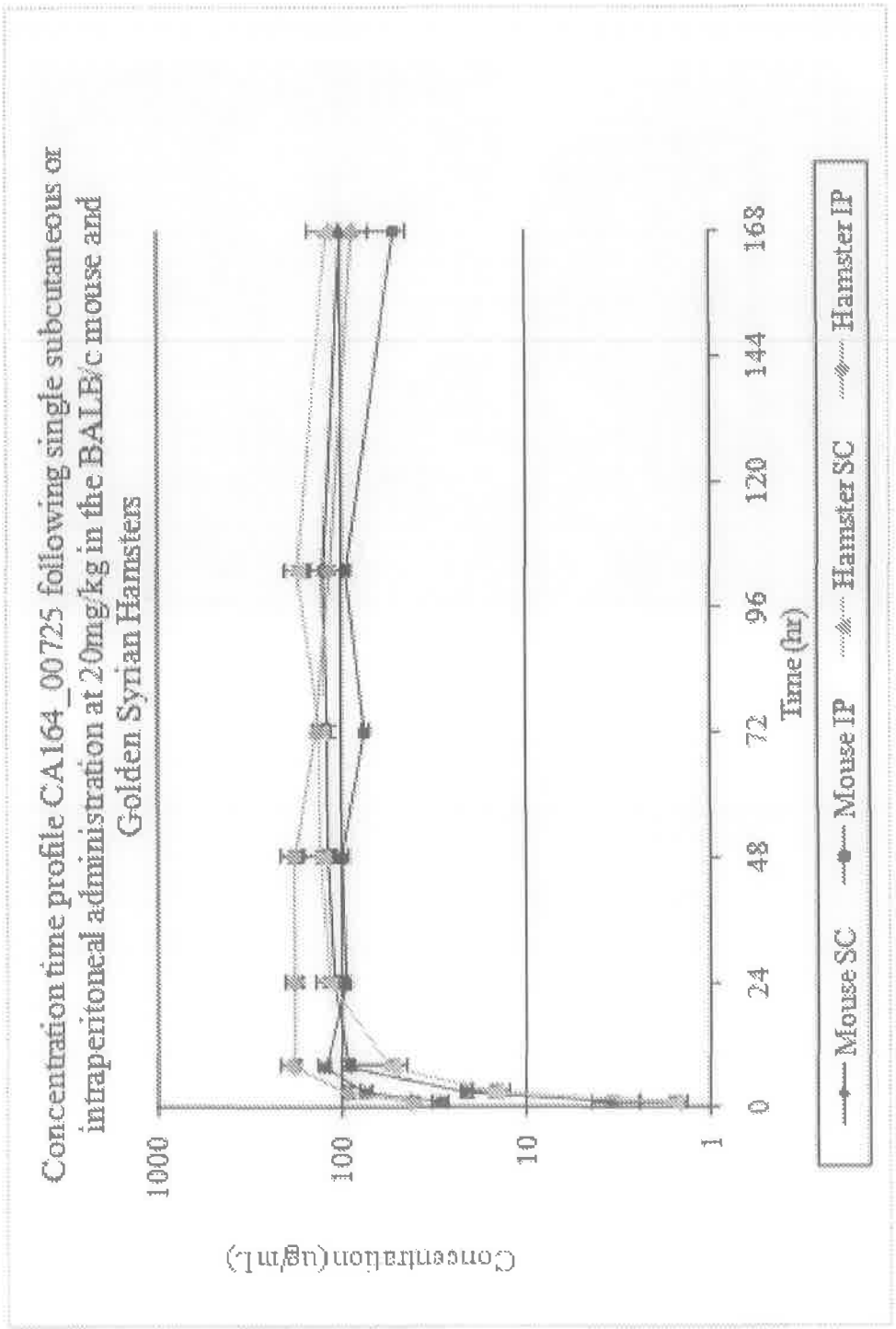


Figure 67 Serum pharmacokinetics of a human IgG1 in mice and hamsters

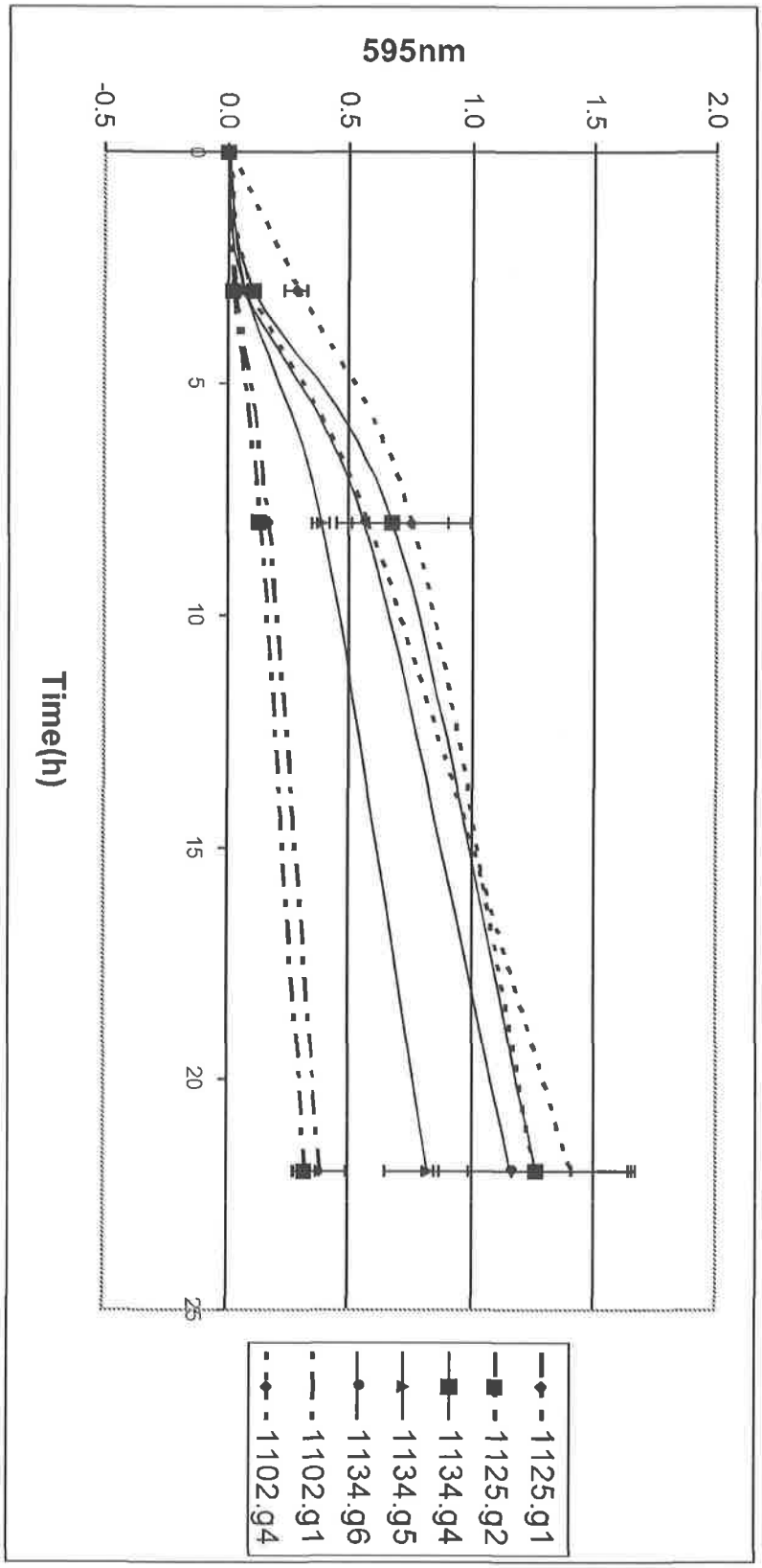


Figure 68 Effect of Agitation *via* Vortexing on anti-TcdB IgG1 Molecules in PBS, pH 7.4(n=3)

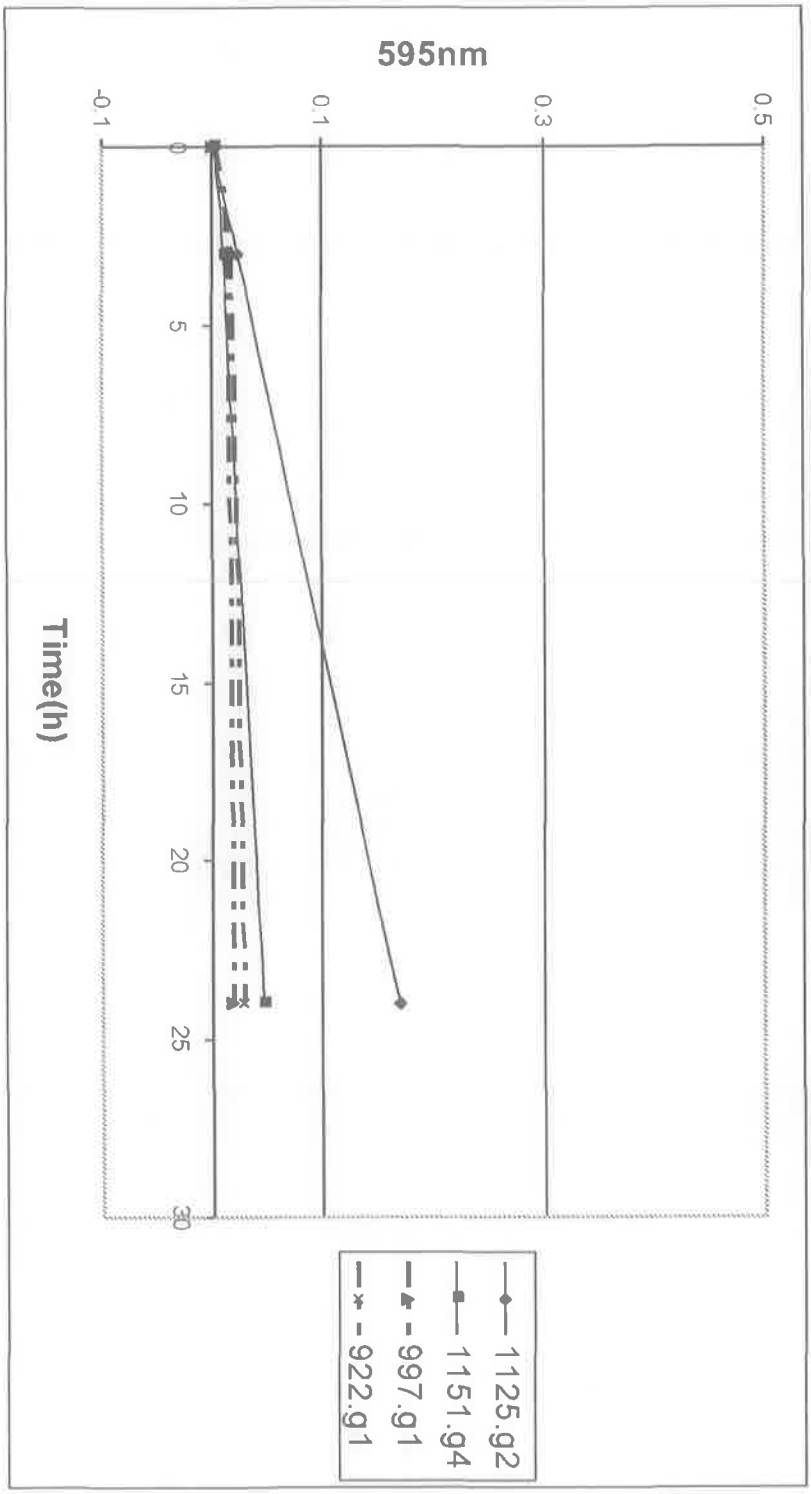


Figure 69 : Comparison of Aggregation Stability of anti-TcdA and anti-TcdB IgG1 Molecules in PBS pH 7.4

Figure 70 Neutralisation against ribotype 003

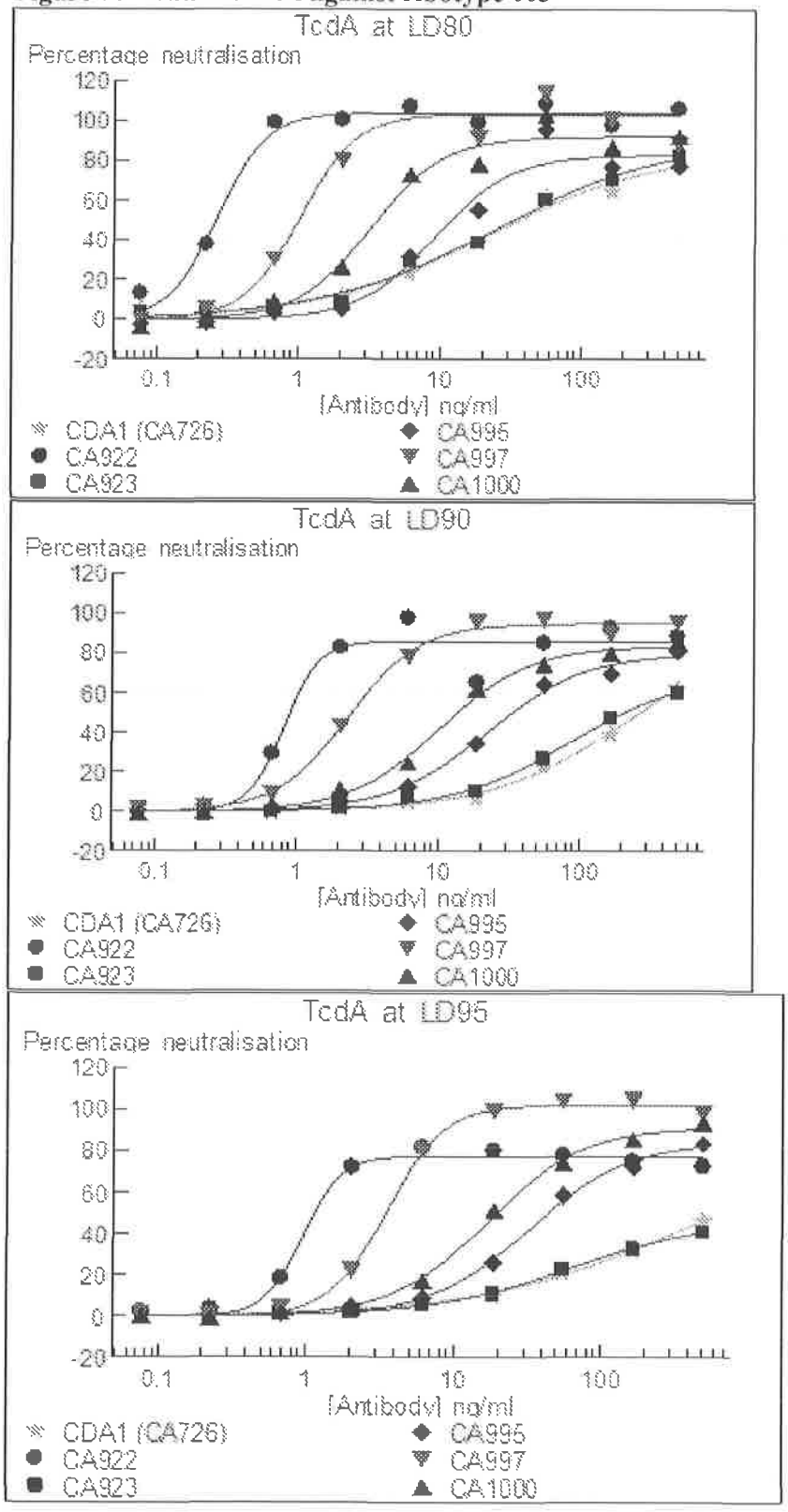


Figure 71 Neutralisation against ribotype 003

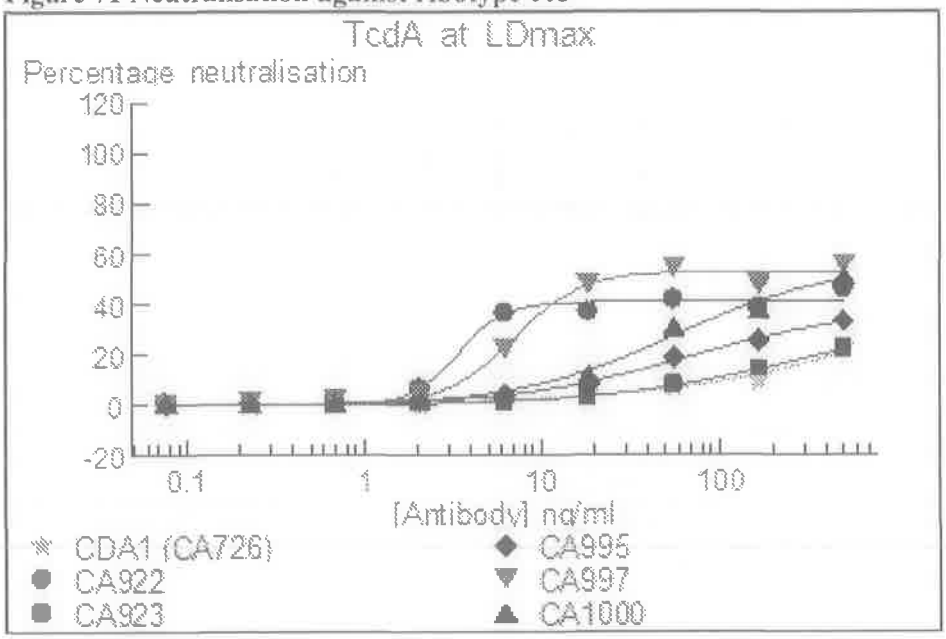


Figure 72 Neutralisation against ribotype 027

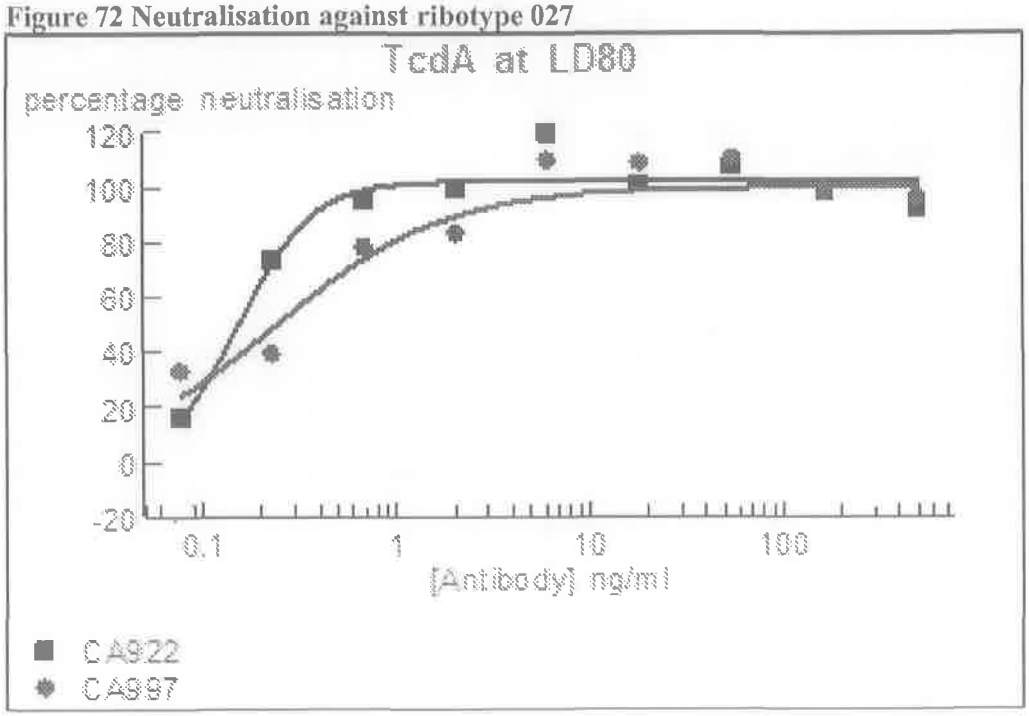


Figure 73 Neutralisation against ribotype 078

