

FIG. 1A: coFVIII-3 – SEQ ID NO: 1

ATGCAGATCGAACTGAGCACCTGCTTCTTTCTGTGCCTGCTGAGGTTTTGCTTTAGCGCCACCAGGAGATACTATCTGGGCGC
 CGTGGAACTGAGCTGGGACTATATGCACTCTGATCTGGGCGAACTGCCAGTGGATGCCAGGTTTCCCCCAGAGTGCCCAAAA
 GCTTTCCCTTTAATACCAGCGTGGTGTATAAGAAAACCTGTTTGTGGAATTCACCTGATCATCTGTTTAATATCGCCAAGCCC
 AGGCCCCCTGGATGGGCTGCTGGGCCCCACCATCCAGGCCGAAGTGTATGATACCGTGGTCATCACCTGAAAAACATGGC
 CAGCCATCCAGTGAGCCTGCATGCTGTGGCGTCTCCTATTGGAAAAGCCTCTGAAGCGCCGAGTATGATGATCAGACCAGCC
 AGAGGGAAAAAGAAGATGATAAAGTCTTTCTGGGGGACGCCATACCTATGTCTGGCAGGTCCTGAAAGAAAATGGCCCCATG
 GCCAGCGATCCCTGTGCCTGACCTATAGCTATCTGAGCCATGTGGACCTGGTGAAGGATCTGAACAGCGCCCTGATTGGGGC
 CCTGCTGGTGTGCAGGGAAGGCAGCCTGGCCAAAGAAAAAACCCAGACCTGCATAAGTTTATCCTGCTGTTTGCCGTGTTTG
 ATGAAGGCAAAAGCTGGCATTCTGAAACAAAAACAGCCTGATGCAGGACAGGGATGCCGCCTCTGCCAGGGCCTGGCCCAAA
 ATGCATACCGTGAATGGCTATGTGAATAGGAGCCTGCCTGGCCTGATTGGCTGCCACAGGAAAAGCGTGATTGGCATGTGAT
 CGGCATGGGCACCCCGGAAGTGCATAGCATCTTTCTGGAAGGCCATACCTTCCCTGGTCAGGAACCAGGCAGGCCAGCC
 TGGAAATCAGCCCCATCACCTTCTGACCGCCAGACCTGCTGATGGATCTGGGCCAGTTTCTGCTGTTTTGCCACATCTCC
 AGCCATCAGCATGATGGCATGGAAGCCTATGTGAAAGTCGATAGCTGCCCCGAAGAACCCAGCTGAGGATGAAAAACAATGA
 AGAAGCCGAAGACTATGATGATGATCTGACTGATTCTGAAATGGATGTGGTCAGGTTTGATGATGATAATAGCCCCAGCTTTA
 TCCAGATCAGGAGCGTGGCCAAAAACATCCCAAGACCTGGGTGCATTATATCGCTGCTGAGGAAGAAGATTGGGACTATGCC
 CCCCCTGGTGTGGCCCCCTGATGATAGGAGCTATAAAAGCCAGTATCTGAACAATGGCCCCCAGAGGATTGGCAGGAAGTATAA
 AAAAGTCAGGTTTATGGCCTACACTGATGAAACCTTCAAGACCAGGGAAGCCATCCAGCATGAGTCTGGCATCCTGGGCCCCC
 TGCTGTATGGCGAAGTGGGGGACACCTGCTGATCATCTTTTAAATAATAGGCCAGCAGGCCCTATAATATCTATCCCCATGGC
 ATCACTGATGTGAGGCCCTGTACAGCAGGAGGCTGCCCAAAGGCGTGAAACATCTGAAAGATTTTCCCATCTGCCTGGCGA
 AATCTTTAAGTATAAATGGACTGTGACTGTGGAAGATGGCCCCACCAAAGCGATCCAGGTGCCTGACCAGGTATTATTCCA
 GCTTTGTGAATATGGAACGCGATCTGGCCTCTGGCCTGATTGGCCCCCTGCTGATCTGCTATAAAGAGTCTGTGGACCAGAGG
 GGCAATCAGATCATGAGCGATAAAAGGAATGTATCCTGTTCTCTGCTTTGATGAGAATAGGAGCTGGTACCTGACCGAAAA
 CATCCAGAGGTTTCTGCCAATCCCGCCGGCTGCAGCTGGAAGATCCCGAGTTTCAGGCCAGCAATATCATGCATAGCATCA
 ATGGCTATGTCTTTGATAGCCTGCAGCTGAGCGTGTGCCCTGCATGAGGTGGCCTATTGGTATATCCTGAGCATCGGCGCCAG
 ACCGATTTTCTGAGCGTGTTTTCTCTGGCTATACCTTTAAACATAAAATGGTGTATGAGGACACCCTGACCCTGTTTCCCTT
 CTCTGGCGAAACCGTGTTTATGAGCATGGAATAATCCCGGCTGTGGATCCTGGGCTGCCACAACAGCGATTTTCAGGAACAGGG
 GCATGACTGCCCTGCTGAAAGTCTCCAGCTGCGATAAAACACTGGGGACTATTATGAGGACAGCTATGAGGACATCAGCGCC
 TATCTGCTGAGCAAGAACAATGCCATCGAACCAGGAGCTTTAGCCAGAATCCCCAGTGTGAAAAGGCATCAGAGGGAAT
 CACCAGGACCACCCTGCAGTCTGATCAGGAAGAAATCGACTATGATGATACCATCAGCGTGGAAATGAAGAAAGAAAGATTTTG
 ATATCTATGATGAAGATGAAATCAGAGCCCCAGGAGCTTTCAGAAAGAAAACAGGCATTACTTCATCGCTGCTGTGGAAAGG
 CTGTGGGACTATGGCATGTCCAGCAGCCCCCATGTGCTGAGGAACAGGGGCCAGTCTGGCAGCGTGGCCAGTTTAAAAAGT
 CGTGTTTCAGGAGTTTACCGATGGCAGCTTTACCCAGCCCCGTGATAGGGGGCGAACTGAATGAACATCTGGCCCTGCTGGGCC
 CCTACATCAGGGCCGAAGTGAAGATAATATCATGGTGACCTTCAGGAACCAGGCCAGCAGGCCCTACAGCTTTTATTCCAGC
 CTGATCAGCTATGAGGAAGATCAGAGGCAGGGGGCTGAGCCAGGAAAACTTTGTGAACCCAATGAAACCAAGACCTACTT
 TTGGAAGTCCAGCATCATATGGCCCCACCAAGGATGAATTTGATTGCAAGCCTGGGCCCTACTTCTCTGATGTGGACCTGG
 AAAAGATGTGCATAGCGGCCTGATTGGCCCCCTGCTGGTGTGCCACACCAATACCCTGAACCTGCCCATGGCAGGCAGGTG
 ACTGTGCAGGAGTTTGCCCTGTTCTTTACCATCTTTGATGAAACAAAAGCTGGTACTTCACCGAAAACATGGAAGGAACTG
 CAGGGCCCCCTGCAACATCCAGATGGAAGATCCACCTTTAAAGAAAAATTATAGGTTCCATGCCATCAATGGCTATATCATGG
 ATACCCTGCCTGGCTGTGTCATGGCCAGGACAGAGGATCAGGTGGTATCTGCTGAGCATGGGCAGCAATGAAAACATCCAT
 AGCATCCATTTCTCTGGCCATGTCTTTACCGTCAGGAAAAAAGAAGAGTATAAAATGGCCCTGTATAATCTGTACCCTGGGGT
 GTTTGAAACCGTGAAATGCTGCCAGCAAAGCCGGCATCTGGAGGGTGAATGCCTGATTGGCGAACATCTGCATGCTGGCA
 TGAGCACCTGTTTCTGGTGTATAGCAATAAGTGCCAGACCCCCCTGGGCATGGCCTCTGGCCATATCAGGGATTTTCAGATC
 ACTGCTCTGGCCAGTATGGCCAGTGGGCCCCAACTGGCCAGGCTGCATTATCCGGAAGCATCAATGCCTGGAGCACCAA
 AGAACCTTTAGCTGGATCAAAGTCGATCTGCTGGCCCCCATGATCATCCATGGCATCAAGACCCAGGGGGCCAGGCAGAAAT
 TTTCCAGCCTGTACATCAGCCAGTTTATCATCATGTATAGCCTGGATGGCAAAAAATGGCAGACCTATAGGGGCAATAGCACC
 GGCACCTGATGGTGTCTTTGGCAATGTGGACAGAGCGGCATCAAAACATAAATATCTTTAATCCCCCATCATCGCCAGGTA
 TATCAGGCTGCATCCACCCATTATAGCATCAGGAGCACCTGAGGATGGAACCTGATGGGCTGCGATCTGAACAGCTGCAGCA
 TGCCCCCTGGGCATGGAAGCAAAGCCATCAGCGATGCCAGATCACTGCCTCCAGCTACTTCACTAATATGTTTGGCACCTGG
 AGCCCCAGCAAAGCCAGGCTGCATCTGCAGGGCAGGAGCAATGCTGGAGGGCCAGGTCAACAATCCCAAAGAAATGGCTGCA
 GGTCGATTTTCAGAAAACCATGAAAGTCACTGGGGTGACCACCCAGGGGGTGAAGAGCCTGCTGACCAGCATGTATGTGAAG
 AGTTTCTGATCTCCAGCAGCCAGGATGGCCATCAGTGGACCCTGTTCTTTTCAAGTGGCAAAGTCAAAGTCTTTTCAAGGCAAT
 CAGGACAGCTTTACCCCTGTGGTGAATAGCCTGGATCCCCCCTGCTGACCAGGTATCTAGGATCCATCCCCAGAGCTGGGT
 GCATCAGATCGCCCTGAGGATGGAAGTGTGGGCTGCGAAGCCAGGACCTGTACTGA

FIG. 1B: coFVIII-4 – SEQ ID NO: 2

ATGCAGATCGAGCTGAGCACGTGCTTCTTCTGTGCCTGCTGAGGTTCTGCTTCAGCGCCACCAGGAGGTACTACCTGGGCGC
 CGTGGAGCTGAGCTGGGACTACATGCAGAGCGACCTGGGCGAGCTGCCCGTGGACGCCAGGTTCCCCCCCAGGGTGCCCAAGA
 GCTTCCCCCTTCAACACGAGCGTGGTGTACAAGAAGACCCCTGTTCTGTTGAGTTTACCCGACCATCTGTTCAATATCGCCAAGCCC
 AGGCCCCCTGGATGGGGCTGCTGGGGCCACGATCCAGGCCGAGGTGTACGACACCGTGGTTCATCACCTGAAGAATATGGC
 CAGCCACCCCTGAGCTGCACGCCGTGGGCTGAGCTACTGGAAGGCCAGCGAGGGCGCCGAGTACGACGACCAGACAGCC
 AGAGGGAGAAGGAGGACGACAAGGTGTTCCCCGGCGGACGCCACACCTACGTGTGGCAGGTGCTGAAGGAGAATGGGCCCATG
 GCCAGCGACCCCTGTGCTGACCTACTCTTACCTGAGCCACGTGGATCTGGTGAAGGACCTGAACAGCGGCCCTGATCGGCGC
 CCTGCTGGTGTGCAGGGAGGGCAGCCTGGCCAAGGAGAAGACCCAGACCCTGCACAAGTTTCATCCTGCTGTTCCGCGTGTTCG
 ACGAGGGCAAGAGCTGGCAGAGCGAGACCAAGAACAGCCTGATGCAGGATAGGGACGCCGCCAGCGCCAGGGCCCTGGCCCAAG
 ATGCACACCGTGAACGGCTACGTGAACAGGTCTCTGCCCGGCCCTGATCGGCTGCCACAGGAAGAGCGTGTACTGGCACGTGAT
 CGGCATGGGGACCACCCCGAGGTGCACAGCATCTTCTGGAGGGCCACACGTTCTTGGTGAAGGATCACAGGCAGGGCCAGCC
 TGGAGATCAGCCCGGAGTCAGCTTCTGACCGCCAGACCCCTGCTGAGGACCTGGGGCAGTTCTCTGCTTCTGCTGATCAGC
 TCTCACCAGCAGCAGCGCATGGAGGCTACGTGAAGGTGGATAGCTGCCCGGAGGAGCCCGAGCTGAGGATGAAGAACAACGA
 GGAGGCCGAGGACTACGACGACGACCTGACCGACAGCGAGATGGACGTGGTGAAGTTCGACGACGACAATAGCCCGAGCTTCA
 TCCAGATCAGGAGCGTGGCCAAGAAGCACCCCAAGACCTGGGTGCATTACATCGCCGCCGAGGAGGAGATTGGGACTACGCC
 CCCCTGGTGTGGCCCCGACGACAGGTCTTACAAGAGCCAGTACCTGAACAACGGGCCCCAGAGGATCGGCAGGAAGTACAA
 GAAGGTGAGGTTTCATGGCCTACACCGACGAGACCTTCAAGACCAGGGAGGGCGATCCAGCAGGAGAGCGGGATCTTGGGGCCCC
 TGCTGTACGGCGAGGTGGGCGACACGCTGCTGATCATCTTCAAGAACCAGGCCAGCAGGCCGTACAATATCTACCCCAAGGG
 ATCACCAGCGTGAGGCCCTGTACTCTAGGAGGCTGCCCAAGGGCGTGAAGCACCTGAAGGACTTCCCATCTGCCCCGGCGA
 GATCTTCAAGTACAAGTGGACCGTGACCGTGGAGGACGGGCCACGAAGAGCGACCCAGGTGCTGACAGGTACTACAGCT
 CTTTCTGAACATGGAGAGGGACCTGGCCAGCGGCCCTGATCGGGCCCCCTGCTGATCTGCTACAAGGAGAGCGTGGATCAGAGG
 GGCAACCAGATCATGAGCGACAAGAGGAACGTGATCCTGTTTCAGCGTGTTCGACGAGAATAGGTCTTGGTACCTGACCGAGAA
 TATCCAGAGGTTCTTGCCCAACCCCGCCGGCTGCAGCTGGAGGATCCCGAGTTCCAGGCCAGCAACATCATGCACAGCATCA
 ACGGCTACGTGTTTCGACAGCCTGCAGCTGAGCGTGTGCTGACAGAGGTGGCCTACTGGTACATCCTGAGCATCGGCGCCAG
 ACCGACTTCTTGAGCGTGTCTTTCAGCGGCTACACCTTCAAGCACAAAGATGGTGTACGAGGATACCCTGACCCCTGTTCCCCTT
 CAGCGGCGAGACCGTGTTCATGAGCATGGAGAACCCCGGCCCTGTGGATCCTGGGCTGCCATAACTCCGACTTCAGGAATAGGG
 GCATGACCGCCCTGCTGAAGGTGAGCTCTTGGCACAAGAACACCGCGGACTACTACGAGGATAGCTACGAGGATATCAGCGCC
 TACCTGCTGAGCAAGAACAACGCCATCGAGGCCAGGTCTTTTCAGCCAGAACCCCCCTGCTGAAGAGGCCACGAGGGAGAT
 CACCAGGACGACCTGACAGAGCGACAGGAGGAGATCGACTACGACGACACGATCAGCGTGGAGATGAAGAAGGAGGATTCG
 ACATCTACGACGAGGACGAGAATCAGAGCCCCAGGTCTTTTCAGAAGAAGACCAGGCATTACTTCATCGCCGCCGTGGAGAGG
 CTGTGGGACTACGGCATGAGCAGCTCTCCCCACGTGCTGAGGAATAGGGCCAGAGCGGCAGCGTGGCCAGTTCAAGAAGGT
 GGTGTTCCAGGAGTTTACCGACGGCAGCTTCACCCAGCCCCGTACAGGGGCGAGCTGAACGAGCACCTGGGCCCTGCTGGGGC
 CCTACATCAGGGCCGAGGTGGAGGATAACATCATGGTGACCTTCAGGAATCAGGCCAGCAGGCCCTATAGCTTCTATAGCTCT
 CTGATCAGCTACGAGGAGGATCAGAGGCAGGGCGCCGAGCCAGGAAGAACTTCGTGAAGCCCAACGAGACCAAGACCTACTT
 CTGGAAGGTGCAGCACCACATGGCCCCACGAAGGACGAGTTTCGACTGCAAGGCCTGGGCCCTACTTCAGCGACGTGGATCTGG
 AGAAGGACGTGCACAGCGGCCCTGATCGGGCCCCCTGCTGGTGTGCCACACCAACACCTGAACCCCGCCACGGCAGGCAGGTG
 ACCGTGCAGGAGTTTCGCCCTGTTCTTCAACCATCTTCGACGAGACCAAGAGCTGGTACTTCACCGAGAATATGGAGAGGAATTG
 CAGGGCCCCCTGCAATATCCAGATGGAGGACCGACCTTCAAGGAGAATTACAGGTTCCACGCCATCAACGGCTACATCATGG
 ACACGCTGCCCGGCTGGTCATGGCCAGGATCAGAGGATCAGGTGGTATCTGCTGAGCATGGGGAGCAACGAGAATATCCAC
 AGCATCCACTTCAGCGGCCACGTGTTACCGTGAGGAAGAAGGAGGAGTACAAGATGGCCCTGTACAATCTGTACCCCGGCGT
 GTTCGAGACCGTGGAGATGCTGCCAGCAAGGCCGGGATCTGGAGGTGGAGTGCCTGATCGGCGAGCACCTGCACGCCGGCA
 TGAGCAGCTGTCTGTTGTAATCTAACAAGTGCCAGACCCCCCTGGGGATGGCCAGCGGCCACATCAGGGACTTCCAGATC
 ACCGCCAGCGGCCAGTACGGCCAGTGGGCCCCCAAGCTGGCCAGGCTGCATATTCCGGAAGCATCAACGCCTGGAGCACGAA
 GGAGCCCTTCAGCTGGATCAAGGTGGATCTGCTGGCCCCCATGATCATCCACGGGATCAAGACCCAGGGCGCCAGGCAGAAGT
 TCAGGTCTCTGTATATCAGCCAGTTTCATCATGTACTCTCTGGACGGCAAGAAGTGGCAGACCTACAGGGGCAACAGCACCC
 GGCACGCTGATGGTGTCTTCTCGGCAACGTGGACTCTAGCGGGATCAAGCACAATATCTTCAACCCCCCATCATCGCCAGGTA
 CATCAGGCTGCACCCACCCATTACTCTATCAGGTCTACCTGAGGATGGAGCTGATGGGCTGCGACCTGAACAGCTGCAGCA
 TGCCCCCTGGGGATGGAGAGCAAGGCCATCAGCGACGCCAGATCACGCCAGCTCTTACTTCACCAACATGTTCCGCCACCTGG
 AGCCCGAGCAAGGCCAGGCTGCACCTGCAGGGCAGGTCTAACGCCTGGAGGCCCCAGGTGAACAACCCCAAGGAGTGGCTGCA
 GGTGGATTTCCAGAAGACCATGAAGGTGACCGGGCTGACCACGCAGGGCGTGAAGAGCCTGCTGACCAAGCATGTACGTGAAGG
 AGTTCTGATCAGCTCTAGCCAGGACGGCCACCAAGTGGACCTGTTCTTCCAGAACGGCAAGGTGAAGGTGTTCCAGGGCAAC
 CAGGATAGCTTCAACCCCTGGTGAACAGCCTGGACCCCCCTGCTGACCAAGGTATCTGAGGATCCACCCCGAGAGCTGGGT
 GCACCAGATCGCCCTGAGGATGGAGGTGCTGGGCTGCGAGGCCAGGATCTGTATTGA

FIG. 1C: coFVIII-5 – SEQ ID NO: 70

ATGCAAATCGAACTGAGCACCTGTTTCTTCTCTGCTGCTGAGATTCTGTTTCTCCGCGACCCGCGGATACCTACCTGGGAGCAGTGG
 AGCTCTCCTGGGATTACATGCAGAGCGACCTTGGGGAGCTGCCCGTGGATGCCAGGTTCCCTCCCCGGGTGCCAAAGTCGTTTCCGTT
 CAACACCTCCGTGGTGACAAAGAACTCTGTTCTGTTGAGTTACCGACACCTGTTCAATATCGCCAAGCCAGACCTCCCTGGATG
 GGGCTGTTGGGACCTACCATCCAAGCGGAGGTGTACGACACTGTGGTCATCACTCTGAAGAACATGGCCTCGCATCCCGTGTCCCTGC
 ACGCGTGGGAGTGTCTTACTGGAAGCGTCCGAGGGGGCCGAATACGACGACAGACCTCGCAGAGAGAAAGGAAGATGACAAGGT
 GTTCCAGGAGGATCGCACACCTACGTGTGGCAAGTGTGAAGGAGAACGGCCCAATGGCCTCCGACCCGCTGTGCTGACCTACTCG
 TACCTGTCCACGTGGACCTCGTGAAGGACCTCAACTCGGGACTGATTGGAGCCCTGCTGGTCTGCAGGGAAGGCTCACTGGCGAAAG
 AAAAGACTCAGACCTTGCACAAGTTCATTCTGCTGTTGCTGTGTTGACGAGGGGAAGTCGTGGCACAGCGAGACTAAGAATCCCT
 GATGCAAGATAGAGATGCCGCTCCGCCCCGGGCTGGCCTAAGATGCACACCGTGAACGGTTACGTGAACCGCTCCCTCCCTGGCCTG
 ATTGGATGCCACCGGAAGTCCGTGTACTGGCACGTGATCGGGATGGGACACCCCGAGGTGCACAGCATCTTCTGGAAGGTCAACA
 CATTCTCTGTCGCGCAACCACCGGCGAGGCTCCCTGGAAATCAGCCCCATTACCTTCTCACTGCCAGACTCTGCTGATGGACCTGGG
 ACAGTTCCTGCTGTTCTGCCATATCTCTCCACCAACATGACGGAATGGAGGCATACGTGAAGGTGATTCCTGCCCTGAGGAACCC
 CAGCTCCGCATGAAGAACAATGAGGAAGCCGAGGACTACGACGACGACCTGACGGATAGCGAGATGGATGTGGTCCGTTCCGATGACG
 ATAACAGCCCTTCTTCATCCAAATTCGCTCGGTGGCAAAGAAGCACCCCAAGACCTGGGTGCATTACATTGCGGCGGAAGAAGAGGA
 CTGGGATTATGCCCGCTTGTCTCGCTCCTGACGACCGGAGCTACAAGAGCCAGTACCTGAACAACGGTCCACAGAGGATCGGTAGA
 AAGTACAAGAGGTCCGCTTCATGGCCTATACCGACGAAACCTTCAAACTAGAGAGGCCATCCAACACGAATCCGCGCATCTGGGCC
 CGCTCTGTACGGAGAAGTCGGCGACACCCCTTCTCATTATCTTCAAGAACCAGGCTTCCCGGCGGTACAACATCTATCCGCATGGGAT
 CACTGACGTGCGCCACTGTACTCGCGGCGCTGCCAAGGCTGTCAAACACCTGAAGGATTTTCCGATCCTTCCGGGAGAAATCTTC
 AAGTACAAGTGGACCGTGACCGTGGAAAGATGGCCCCAACTAAGTCTGACCTAGATGCCTCACCCGCTACTACTCATCCTTCGTCAACA
 TGGAGCGCGACCTGGCCAGCGGACTGATCGGCCGCTGCTGATTTGCTACAAGGAATCAGTGGACCAACGGGGAACCCAGATCATGTC
 GGATAAGAGGAACGTTCATCTCTTCCGTGTTTACGAAAACCGGTCTGTGTACCTGACTGAAAACATCCAGCGGTTCTCCCAAC
 CCGCGGGCGGTGCAGCTGGAAGATCCTGAGTTTCAGGCATCAAACATCATGCACTCCATTAACGGCTACGTGTTTCGATTCTGCTGCAGC
 TGAGCGTGTCTGCACGAAGTGGCTACTGGTACATCTGTCCATTGGTGGCCAGACTGACTTCTGTCCGTGTTTTCTCCGGCTA
 CACGTTCAAGCACAAAGATGGTGTACGAGGACACCTGACCCCTTTCCTTTTCCGGCGAAACTGTGTTTATGAGCATGGAGAATCCC
 GGCCTGTGGATCTTGGGCTGCCACAACAGCGACTTCCGTAAACAGAGGAATGACTGCGCTGCTCAAGGTGTCCAGCTGCGACAAGAACA
 CCGGAGACTATTATGAGGACTCATACGAGGACATCTCCGCTACCTCTGTCCAAGAATAACGCCATTGAACCTCGGAGCTTCAGCCA
 GAACCCACCCGTGCTTAAGAGACATCAACGGGAGATCACTAGGACACCCCTGCAGTCAGACCAGGAGGAAATCGACTACGATGACACC
 ATCTCGGTGAGATGAAGAAGGAGGACTTTGACATCTACGACGAAGATGAAACCAGAGCCCGAGGTCTGTCCAAAAGAAAACCCGCC
 ACTACTTTATTGCTGCTGTGAGCGGCTGTGGGACTACGGAATGTGCTCCTCGCCGACAGTGTCTCGCAACCGAGCCAGAGCGGCTC
 GGTGCCGAATTCAGAAGGTCTGTTCAGGAGTCACTGACGGGAGCTTCACTCAGCCCTTGTACCGGGGAGAACTCAATGAACAT
 CTCGGCTCTCTCGGACCTTACATCAGAGCAGAAGTGAAGATAACATCATGGTCATTTCCGTAAACCAAGCCAGCGCCGCTACTCGT
 TCTACTCTCTCCTCATTTCTTACGAAGAGGACAGCGGCGAGGGCGAGAACCAGCGCAAGAACTTCGTGAAGCCCAACGAAACCAAGAC
 CTACTTCTGGAAGTGCAGCATCATATGGCCCCGACTAAGGACGAGTTTGAAGTGAAGGCTGGGCTACTTCTCCGATGTGGACTTG
 GAGAAGGACGTCCACTCCGGCTCATCGGTCCCTGCTCGTGTGCCATACCAATACCCTGAACCCCGCACAGGCTCGCCAGGTCAACG
 TGCAGGAGTTCGCTCTGTTCTTCACTATCTTCGACGAACTAAGTCTGTTGACTTCAACGAGAATGAGAGGAACTGCAGAGCCCC
 CTGTAACATCCAGATGGAGGACCCGACGTTCAAGGAAAACCTACCGGTTCCACGCCATTAAACGATACATCATGGATACGCTGCCGGGT
 CTTGTGATGGCCAGGATCAACGGATCAGATGGTACTTATGTGATGGGAGCAACGAGAACATCCAATCTATTCACTTCTCCGGTC
 ATGTGTTCACTGTGCGGAAGAAGGAGTACAAGATGGCCCTGTACAACCTTTATCCCGAGTGTTCGAAACTGTGGAATGTGCTGCC
 GTCGAAGGCCGGCATTGGCGCGTGGAGTGTGATTGGAGAACATCTCCATGCGGGGATGTCAACCTGTTCCTGGTGTATAGCAAC
 AAGTGCCAGACTCCGCTTGGGATGGCGTCAGGACACATTAGGGATTTCCAGATCACTGCGTCCGGCCAGTACGGCCATGGGCCCTA
 AGCTGGCCCGCTGCATTACTCCGATCCATTAACGCTTGTCAACCAAGGAGCCATTCTCTGGATCAAGGTGGACCTTCTGGCCCC
 CATGATTATCCACGGAATTAAGACCCAGGGGGCCCGGCAGAAGTCTCCTCACTGTACATCAGCCAGTTTCAATCATGTACTCCCTG
 GACGGAAGAAGTGGCAAACCTACAGGGGGAACAGCACCGGCACACTGATGGTCTTTTCCGGAATGTGGACTCTCCGGGATTAAGC
 ATAACATCTTCAACCCCTCGATTATCGCTCGGTACATTAGACTTACCCCTACCCACTACAGCATTGCTCCACCTGCGGATGGAACT
 GATGGGCTGCGATCTGAACCTCGTGCAGCATGCCGTTGGGAATGGAGTCCAAAGCAATTTCCGACGCGCAGATCACCGCCTCGTCTAC
 TTTACCAACATGTTGCCACGTGGTCACCGTCCAAGGCCCGGCTGCACCTCCAGGGAAGATCCAACGCATGGCGGCCACAGGTCAACA
 ACCCTAAGGAGTGGCTCCAGGTGGACTTCCAGAAAACCATGAAGGTCAACGGAGTCAACCCAGGGAGTGAAGTCTGCTGCTGACTTC
 TATGTACGTCAAGGAGTTCCTGATCTCAGCAGCCAGGACGGGCACAGTGGACCTGTTCTTCCAAAATGGAAAGGTCAAGGTGTTT
 CAGGGCAATCAGGATTATTACCCCGGTGGTGAACCTCTTATGATCCACCCCTCTGACCCGCTACCTTCGCATCCACCCAGATCCT
 GGGTGACACAGATCGCGCTGAGGATGGAGGTCTGGGATGCGAAGCCCAAGGACCTGTACTGA

FIG. 1D : coFVIII-6 – SEQ ID NO: 71

ATGCAGATTGAGCTGTCCACTTGTCTTCTCTGTGCCTCCTGCGCTTCTGTTTCTCCGCCACTCGCCGGTACTACCTTGGAGCCGTGG
 AGCTTTTCATGGGACTACATGCAGAGCGACCTGGGCGAACTCCCGTGGATGCCAGATTCCCCCCCCCGGTGCCAAAGTCTTCCCCCTT
 TAACACCTCCGTGGTGTAACAAGAAACCCCTCTTTGTCGAGTTCACTGACCACCTGTTCAACATCGCCAAAGCCGCGCCACCTTGGATG
 GGCCTCCTGGGACCGACCATTCAGCTGAAGTGTACGACACCGTGGTGATCACCTGAAGAACATGGCGTCCACCCCGTGTCCCTGC
 ATGCGGTGCGAGTGTCTACTGGAAGGCTCCGAAGGAGCTGAGTACGACGACCACTAGCCAGCGGGAAAGGAGGACGATAAAGT
 GTTCCCGGGCGGCTCGCATACTTACGTGTGGCAAGTCTTGAAGGAAACGGACCTATGGCATCCGATCCTCTGTGCCGTGACTTACTCC
 TACCTTTCCCATGTGGACCTCGTGAAGGACCTGAACAGCGGGCTGATTGGTGCACTTCTCGTGTCCGCGAAGGTTCCGTCTCGTAAGG
 AAAAGACCCAGACCTCCATAAGTTTCTCTTTTGTTCGTGTGTTTCGATGAAGGAAAGTCAATGGCATTCGGAACCTAAGAACTCGCT
 GATGCAGGACCGGGATGCCGCTCAGCCCGCGCTGGCTTAAATGCATACAGTCAACGGATACGTGAATCGGTCACTGCCCGGGCTC
 ATCGGTTGTACAGAAAGTCCGTGTACTGGCAGCTCATCGGATGGGCACTACGCTGAAGTGCATCCATCTTCTGGAAGGGCACA
 CCTTCTCTGTGCGCAACACCGCCAGGCTCTCTGGAATCTCCCGATTACCTTTCTGACCGCCAGACTCTGCTCATGGACCTGGG
 GCAGTTCTTCTTCTGCCACATCTCCAGCATCAGCAGCAGGATGGAGGCTACGTGAAGGTGGACTCATGCCGGAAGAACCT
 CAGTTCCGGATGAAGAACAGGAGGCGGAGGACTATGACGACGATTTGACTGACTCCGAGATGGACGTCGCGGTTTCGATGACG
 ACAACAGCCCGAGCTTCATCCAGATTGCGAGCGTGGCCAAGAAGCACCCAAACCTGGGTGCACTACATCGCGCCGAGGAAGAAGA
 TTGGGACTACGCCCCGTGGTGTGTCGACCCGATGACCGGTGTCACAGTCCAGTATCTGAACAATGGTCCGCGAGCGGATTGGCAGA
 AAGTACAAGAAAGTGGCGTTTATGGGCTACACTGACGAAACGTTTAAAGACCCGGGAGGCCATTCAACATGAGAGCGGCATTCTGGGAC
 CACTGCTGTACGGAGAGGTGCGCGATACCTGCTCATCATCTTCAAAACAGGCGCTCCCGGCTTACAACATCTACCTCACGGAAT
 CACCGACGTGCGGCCACTCTACTCGCGCGCTGCGGAAGGGCGTCAAGCACTGAAAGACTTCCCTATCTGCGCGGCGAAATCTTC
 AAGTATAAGTGGACCGTCAACGTGGAGGACGGGCCACCAAGAGCGATCTAGGTGTCTGACTCGGTACTACTCCAGCTTCTGTGAACA
 TGAACGGGACCTGGCATCGGACTCATTGGACCGTGTCTGATCTGTACAAAGAGTCGGTGGATCAACGCGCAACAGATCATGTC
 CGACAAGCGCAACGTGATCCTGTTCTCCGTGTTTGTGAAACAGATCCTGGTACCTCACTGAAACATCCAGAGGTTCTCCCAAAC
 CCCGAGGAGTGCAACTGGAGGACCTGAGTTTCAGGCTCGAATATCATGCACTCGATTACCGGTTACGTGTTGACTCGCTGCAGC
 TGAGCGTGTGCTCCATGAAGTCGCTTACTGGTACATCTGTCCATCGGCGCCAGACTGACTTCTGAGCGTGTCTTTTCCGGTTA
 CACCTTTAAGCACAGATGGTGTACGAAGATACCTGACCTGTTCCCTTTCTCCGGCGAAACGGTGTTCATGTGATGGAGAACCCTG
 GGTCTGTGGATTCTGGGATGCCACAACAGCGACTTTCGGAACCGCGAATGACTGCCCTGCTGAAGGTGTCTCATGCGACAAGAACA
 CCGGAGACTACTACGAGGACTCTACGAGGATATCTCAGCTTACCTCTGTCCAAGAACACGCGATCGAGCCGCGCAGCTTCAGCCA
 GAACCCGCTGTGCTGAAGAGGACCGAGCGAAGATTACCCGGACCCCTCCAATCGGATCAGGAGGAAATCGACTACGACGACACC
 ATCTCGGTGGAATGAAGAAGGAAGATTTGATATCTACGACGAGGACGAAATCAGTCCCTCGCTCATTTCCAAAGAAACTAGAC
 ACTACTTTATCGCCCGGTGGAAGACTGTGGGACTATGGAATGTCTCAGCCCTCAGCTCCTTCGGAACCGGGCCAGAGCGGATC
 GGTGCCCTCAGTTCAAGAAAGTGGTGTCCAGGAGTTCACCGACGCGAGCTTCACCCAGCCGCTGTACCGGGGAGAACTGAACGAACAC
 CTGGGCTGCTCGGTCCCTACATCGCGCGGAAGTGGAGGATAACATCATGGTGACCTTCCGTAACCAAGCATCCAGACCTTACTCCT
 TCTATTCTCCTGATCTCATACGAGGAGGACCGCGCAAGGCGCGGAGCCCGCAAGAACTTCGTCAAGCCCAACGAGACTAAGAC
 CTACTTCTGGAAGGTCCAACACCATATGGCCCGACCAAGGATGAGTTTGAAGTGAAGGCTGGGCTACTTCTCCGACGTGGACCTT
 GAGAAGGATGTCCATTCCGGCTGATCGGGCCGCTGCTGCTGTGTACACCAACACCTGAACCCAGCGCATGGACGCCAGGTACCCG
 TCCAGGAGTTTCTCTGTTCTTACCATTTTTACGAACTAAGTCTTGGTACTTCAACGAGAATATGGAGCGAACTGTAGAGCGCC
 CTGCAATATCCAGATGGAAGATCCGACTTTCAGGAGAACTATAGATTCCACGCCATCAACGGGTACATCATGGATACTCTGCCGGG
 CTGGTCATGGCCAGGATCAGAGGATTCGGTGGTACTTGTCTCAATGGGATCGAACGAAACATTCACTCCATTCACTTCTCCGGTC
 ACGTGTTCACTGTGCGCAAGAAGGAGGAGTACAAGATGGCGTGTACAATCTGTACCCCGGGGTGTTGAAACTGTGGAGATGCTGCC
 GTCCAAGGCGGCATCTGGAGAGTGGAGTGCCTGATCGGAGAGCACTCCACGCGGGGATGTCCACCTCTTCTGGTGTACTCGAAT
 AAGTGCCAGACCCGCTGGGCATGGCCTCGGGCCACATCAGAGACTTCCAGATCACAGCAAGCGGACAATACGGCCAATGGGCGCCGA
 AGCTGGCCCGCTTGCACTACTCCGATCGATCAACGATGGTCCACCAAGGAACCGTCTCTGTTGATTAAAGTGGACCTCCTGGCCCC
 TATGATTATCCACGGAATTAAGACCCAGGGCGCCAGGCGAAGTTCTCCTCCCTGTACATCTCGCAATTCTCATCATGTACAGCCTG
 GACGGGAAGAAGTGGCAGACTTACAGGGGAACTCCACCGGCACTGATGGTCTTTTTCGGCAACGTGGATTCTCCGGCATTAAGC
 ACAACATCTTCAACCCACCGATCATAGCCAGATATATTAGGCTCCACCCCACTCACTACTCAATCCGCTCAACTCTTCGGATGGAACT
 CATGGGTGCGACCTGAACTCCTGCTCCATGCCGTTGGGATGGAATCAAAGGCTATTAGCGACGCCAGATCACCGCGAGCTCCTAC
 TTCACTAACATGTTCCGCACTGGAGCCCTCCAAGGCCAGGCTGCACTTGCAGGGACGGTCAAATGCCTGCGGGCCGAAGTGAACA
 ATCCGAAGGAATGGCTTCAAGTGGATTTCAAAAGACCATGAAAGTGACCGGAGTCAACCCAGGGAGTGAAGTCCCTTCTGACCTC
 GATGTATGTGAAGGAGTTCTGATTAGCAGCAGCCAGGACGGGACCAAGTGGACCTGTTCTTCCAAACGGAAAGTCAAGGTGTTT
 CAGGGGAACCGAGCTGTTTCAACCCGTGGTGAACCTTCCCTGGACCCCACTGCTGACGCGGTACTTGAGGATTATCCTCAGTCCT
 GGGTCCATCAGATTGCATTGCGAATGGAAGTCTGGGCTGCGAGGCCAGGACCTGTACTGA

FIG. 1E: coFVIII-52 – SEQ ID NO: 3

ATGCAATCGAACTGAGCACCTGTTTCTTCTGCTGCTGAGATTCTGTTTCTCCGCGACCCGCCGATACTACCTGGGAGC
 AGTGGAGCTCTCCTGGGATTACATGCAGAGCGACCTTGGGGAGCTGCCCGTGGATGCCAGGTTCCCTCCCCGGGTGCCAAAGT
 CGTTTCCGTTCAACACCTCCGTGGTGTACAAGAACTCTGTTCTGGAGTTACCGACCACCTGTTCAATATCGCAAGCCC
 AGACCTCCCTGGATGGGGCTGTGGGACCTACCATCCAAGCGGAGGTGTACGACACTGTGGTCATCACTCTGAAGAACATGGC
 CTCGATCCCGTGTCCCTGCACGCCGTGGGAGTGTCTTACTGGAAGCGTCCGAGGGGGCCGAATACGACGACCAGACCTCGC
 AGAGAGAAAAGGAAGATGACAAGGTGTTCCAGGAGGATCGCACACCTACGTGTGGCAAGTGTGAAGGAGAACGGCCCAATG
 GCCTCCGACCCGCTGTGCTGACCTACTCGTACCTGTCCACGTGGACCTCGTGAAGGACCTCAACTCGGGACTGATTGGAGC
 CCTGCTGCTGCTCGGTGGGAAGGCTCACTGGCGAAAGAAAGACTGAGCTGACACTTGACAAAGTTTATTCTGCTGTTGCTGCTG
 ACGAGGGGAAGTCTGGCACAGCGAGACTAAGAACTCCCTGATGCAAGATAGAGATGCCGCTCCGCCCCGGGCTGGCCTAAG
 ATGCACACCGTGAACGGTTACGTGAACCGCTCCCTCCCTGGCCTGATTGGATGCCACCGGAAGTCCGTGTACTGGCAGTGAT
 CGGGATGGGGACCACCCCGAGGTGCACAGCATCTTCTGGAAGGTGCACATTCTCTGTCGCAACCACCGGCAGGCCTCCC
 TGGAAATCAGCCCCATTACCTTCTCTCACTGCCAGACTCTGCTGATGGACCTGGGACAGTTCTCTGCTGTTCTGCCATATCTCC
 TCCCACCAACATGACGGAATGGAGGCATACGTGAAGTTCGATTCTGCCCTGAGGAACCCAGCTCCGCATGAAGAACAATGA
 GGAAGCCGAGACTACGACGACGACCTGACGGATAGCGAGATGGATGTGGTCCGGTTCGATGACGATAACAGCCCTTCTTCA
 TCCAAATTCGCTCGGTGGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCA
 CCGCTTGTCTCGCTCCTGACGACCGGAGCTACAAGAGCCAGTACCTGAACAACGGTCCACAGAGGATCGGTAGAAAGTACAA
 GAAGGTCCGCTTATGGCCTATACCGACGAAACCTTCAAACTAGAGAGGCCATCCAACAGGAATCCGGCATCTTGGGCCCGC
 TCTTGTACGGAGAAGTCCGGCAGACCCCTTCTCATTATCTTCAAGAACCAGGCTTCCCGGCCGTACAACATCTATCCGCATGGG
 ATCACTGACGTGCGCCCACTGTACTCGCGCGCCTGCCCAAGGCTGTCAAACACCTGAAGGATTTTCCGATCTTCCGGGAGA
 AATCTTCAAGTACAAGTGGACCGTGACCGTGGGAAGATGGCCCACTAAGTCTGACCTTAGATGCCTCACCCTACTACTCAT
 CCTTCTGTCACATGGAGCGGACCTGGCCAGCGGACTGATCGGCCGCTGCTGATTGCTACAAGGAATCAGTGGACCAACGG
 GGAAACCATGATCATGTGCGATAAGAGGAACCTCATCTCTTCTCCGTGTTTGACGAAAACCGGTCTGGTACCTGACCCGAGAA
 CATCCAGAGGTTCTGCCCCAACCTGCTGGGGTGCAGCTGGAGGACCCCGAGTTCCAGGCCAGCAACATCATGCACAGCATCA
 ATGGCTACGTGTTTCGACAGCTGCAGCTGAGCGTGTGCTGTCAGAGGTGGCCTACTGGTACATCTGAGCATCGGCGCCAG
 ACCGACTTCTGAGCGTGTCTTCTTCTGGCTACACCTTCAAGCACAGATGGTGTATGAGGACACCTGACCTGTTCCCTT
 CAGCGGGGAGACTGTCTTATGAGCATGGAGAACCCTGGCCTGTGGATCTTGGGTGCCACAACAGCGACTTCAGGAACAGGG
 GCATGCTGCCCTGTGAAAGTCTCCAGCTGTGACAAGAACCCGGGGACTACTACGAGGACAGCTACGAGGACATCAGCGCC
 TACTGCTGAGCAAGAACATGCCATCGAGCCAGGAGCTTCTCTCAGAACCCCCAGTGTCTGAAGAGGCACCAAGGGAGAT
 CACCAGGACACCCCTGCACTGACCCAGGAGGAGATGACTATGATGACACCATCAGCGTGGAGATGAAGAAGGAGGACTTCG
 ACATCTACGACGAGGACGAGAACCAGAGCCCCAGGAGCTTCCAGAAGAAGACCAGGCCTACTTCTTCTGCTGTGGAGAGG
 CTGTGGGACTATGGCATGTCCAGCAGCCCCATGTGCTGAGGAACAGGGCCAGTCTGGCAGCGTGGCCAGTTCAAGAAAGT
 CGTGTTCAGGAGTTCACCGACGGCAGCTTACCCAGCCCTGTACAGAGGGGAGCTGAACGAGCACCTGGGCCTGTGGGCC
 CCTACATCAGGGCCGAGGTGGAGGACAACATCATGGTGACCTTCAGGAACAGGCCAGCAGGCCCTACAGCTTCTACAGCAGC
 CTGATCAGCTACGAGGAGGACAGAGGACAGGGGGCTGAGCCAGGAGAATTTGTGAAGCCCAATGAAGCAAGACCTACTT
 CTGGAAGGTGCAGCACCACATGGCCCCACCAAGGACGAGTTCGACTGCAAGGCTGGGCCCTACTTCTCTGACGTGGACCTGG
 AGAAGGACGTGCACTCTGGCCTGATTGGCCCCCTGTGCTGTGTCACACCAACACCTGAACCTTGGCCAGGAGGAGTG
 ACTGTGAGGAGTTCGCCCTGTCTTACCATCTTTCGATGAAGAACAGAGCTGGTACTTCACTGAGAACATGGAGAGGAACTG
 CAGGGCCCCCTGCAACATCCAGATGGAGGACCCACCTTCAAGGAGAACTACAGGTTCCATGCCATCAATGGCTACATCATGG
 ACACCTGCTTGGCCTGGTCAATGGCCAGGACAGAGGATCAGGTGGTATCTGCTGAGCATGGGCAGCAACGAGAATCCAC
 AGCATCCACTTCTCTGGCCACGTGTTCACTGTGAGGAAGAAGGAGGAGTACAAGATGGCCCTGTACAACCTGTACCTTGGGGT
 GTTCGAAACCGTGGAGATGCTGCCAGCAAGGCCGGCATCTGGAGGTTGGAGTGCCTGATTGGGGAGCACCTGCACGCCGGCA
 TGAGCACCTGTTCTGTTGTACAGCAACAGTGCCAGACCCCTTGGGCATGGCCTCTGGCCACATCAGGGACTTCCAGATC
 ACTGCCTCTGGCCAGTACGGCCAGTGGGCCCCCAAGCTGGCCAGGCTGCACTACTCCGGAAGCATCAATGCCTGGAGCACCAA
 GGAGCCCTCAGCTGGATCAAAGTGGACCTGCTGGCCCCATGATCATCCACGGCATCAAGACCCAGGGGGCCAGGAGAAGT
 TCTCCAGCTGTACATCAGCCAGTTTCATCATCATGTACAGCCTGGACGGCAAGAGTGGCAGACCTACAGGGGCAACAGCACC
 GGCACCTGATGGTGTCTTTCGGCAACGTGGACAGCAGCGGCATCAAGCACACATCTTCAACCCCCCATCATCGCCAGATA
 CATCAGGCTGCACCCACCCACTACAGCATCAGGAGCACCTGAGGATGGAGCTGATGGGCTGTGACCTGAACAGCTGCAGCA
 TGCCCCCTGGGCATGGAGAGCAAGGCCATCTCTGACGCCCAGATCACTGCCTCCAGCTACTTCAACCAATGTTTGGCCACTGG
 AGCCCCAGCAAGGCCAGGCTGCCTTGCAGGGCAGGAGCAATGCTTGGAGGGCCCCAGGTCACCAACCCCAAGGAGTGGCTGCA
 GGTGACTTCCAGAAGACATGAAGGTGACTGGGGTGACCAACCCAGGGGGTGAAGAGCTGTGACGATGTACCATGAAGG
 AGTTCTGATCTCCAGCAGCCAGGACGGCCACAGTGGACCTGTTCTTCCAGAATGGCAAGGTGAAGGTGTTCCAGGGGCAAC
 CAGGACAGCTTACCCCTGTGGTCAACAGCTGGACCCCCCTGTGACGAGATACCTGAGGATCCACCCCCAGAGCTGGGT
 GCACCATGCTGAGGATGGAGGTGCTGGGCTGTGAGGCCAGGACCTGTACTGA

Subrayado sólido = coFVIII-52-NT58 (SEQ ID NO: 7)

Subrayado punteado = coFVIII-52-CT (SEQ ID NO: 8)

FIG. 1F: coFVIII-62 – SEQ ID NO: 4

ATGCAGATTGAGCTGTCCACTTGTCTTCTCTGTGCCTCCTGCGCTTCTGTTTCTCCGCCACTCGCCGGTACTACCTTGGAGC
 CGTGGAGCTTTTCATGGGACTACATGCAGAGCGACCTGGGCGAATCCCCGTGGATGCCAGATTCCCCCCCCCGCTGCCAAAGT
 CCTTCCCCCTTTAACACCTCCGTGGTGTACAAGAAAACCTCTTTTGTGAGTTCACTGACCACCTGTTCAACATCGCCAGGCCG
 CGCCCCACTTGGATGGGCTCCTGGGACCGACCATTCAGCTGAAGTGTACGACACCGTGGTGATCACCTGGAAGAACATGGC
 GTCCACCCCGTGTCCCTGCATGCGGTGCGAGTGTCTACTGGAAGGCCTCCGAAGGAGCTGAGTACGACGACGACGACTAGCC
 AGCGGGAAGAGGAGCGATAAAGTGTCCCGGGCGGCTCGCATACTTACGTGTGGCAAGTCTGAAGGAAAACGGACCTATG
 GCATCCGATCCTCTGTGCTGACTTACTCCTACCTTTCCCATGTGGACCTCGTGAAGGACCTGAACAGCGGGCTGATTGGTGC
 ACTTCTCGTGTGCGCGAAGGTTGCTCGCTAAGGAAAAGACCCAGACCTCCATAAGTTCATCCTTTTGTTCGCTGTGTTG
 ATGAAGGAAAGTCATGGCATTCGAACTAAGAACTCGCTGATGCAGGACCGGGATGCCGCTCAGCCCCGCGCTGGCTAAA
 ATGCATACAGTCAACGGATACGTGAATCGGTCACTGCCCGGGCTCATCGGTTGTACAGAAAGTCCGTGTACTGGCAGCTCAT
 CGGCATGGGCACTACGCCGAAAGTGCATCCTCTCTGGAAGGGCACACCTTCTCGTGGCAACACCGCCAGGCTCTC
 TGGAAATCTCCCCGATTACCTTTCTGACCGCCAGACTCTGCTCATGGACCTGGGSCAGTTCTTTCTCTTCTGCCACATCTCC
 AGCCATCAGCAGCAGGAATGGAGGCTACGTGAAGGTGGACTCATGCCCCGAAGAACCTCAGTTGCGGATGAAGAACACGA
 GGAGGCCGAGGACTATGACGACGATTGACTGACTCCGAGATGGACGTGCTGCGGTTGATGACGACAACAGCCCCAGCTTCA
 TCCAGATTGCGAGCGTGGCCAAGAACCCCCAAACCTGGGTGCACTACATCGCGCCGAGGAAGAAGATTGGGACTACGCC
 CCGTTGGTGTGTCGACCCGATGACCGGTGCTACAAGTCCAGTATCTGAACAATGGTCCGAGCGGATTGGCAGAAAGTACAA
 GAAAGTGGCGTTCATGGCGTACACTGACGAAACGTTTAAGACCCGGGAGGCGCATCAACATGAGAGCGGCATTCTGGGACCAC
 TGCTGTACGGAGAGGTGGCGATACCTGCTCATCATCTTCAAAACCAGGCTCCCGGCTTACAACATCTACCCTCAGCGA
 ATCACCAGCTGCGGGCCTCTACTCGCGGCGCTGCGGAAGGCGTCAAGCACCTGAAGACTTCCCTATCCTGCGGGCGA
 AATCTTCAAGTATAAGTGGACCGTCAACGTTGGAGGACGGGCCCCAACAGAGCGATCTAGGTGCTGACTCGGTACTACTCCA
 GCTTCGTGAACATGGAACGGGACCTGGCATCGGGACTCATTGGACCGCTGCTGATCTGCTACAAAGAGTCGGTGGATCAACGC
 GGCAACCAGATCATGTCCGACAAGCGCAACGTGATCCTGTTCTCCGTGTTTGGATGAAAACAGATCCTGGTACCTGACCAGAA
 CATCCAGAGGTTCTGCCCCAACCTGCTGGGGTGCAGCTGGAGGACCCCGAGTTCCAGGCCAGCAACATCATGCACAGCATCA
 ATGGCTAGCTGTTCGACAGCCTGCAGCTGAGCGTGTGCTGACGAGGTTGGCTACTGGTACATCTGAGCATCTGGGCGCCAG
 ACCGATCTCTGAGCGGTGTTCTTCTGCTGACCTTCAAGCACAAAGATGGTGTATGAGGACACCTGACCTGTTCCCTTT
 CAGCGGGGAGACTGTCTTATGAGCATGGAGAACCTGGCCTGTGGATCCTGGGCTGCCACAACAGCGACTTCAGGAACAGGG
 GCATGACTGCCCTGCTGAAAGTCTCCAGCTGTGACAAGAACACCGGGGACTACTACGAGGACAGCTACGAGGACATCAGCGCC
 TACCTGCTGAGCAAGAACAATGCCATCGAGCCGAGGAGCTTCTCTCAGAACCCCCAGTGTGTAAGAGGACACGAGGGAGAT
 CACCAGGACACCTGCACTGCTGACGAGGAGGATCGACTATGATGACACCATCAGCGTGGAGATGAAGAGGAGGACTTCG
 ACATCTACGACGAGGACGAGAACCAGAGCCCCAGGAGCTTCAGAAGAAGACCAGGCACTACTTCTGCTGCTGTGGAGAGG
 CTGTGGGACTATGGCATGTCCAGCAGCCCCCATGTGCTGAGGAACAGGGCCAGTCTGGCAGCGTGGCCAGTTCAAGAAAGT
 CGTGTTCAGGAGTTTACCGACGGGAGCTTCAACCGAGCCCTGTACAGAGGGGAGCTGAACGAGCACCTGGGCTGTGGGCG
 CCTACATCAGGGCCGAGGTGGAGGACAAATCATGCTGACCTTCAGGAACAGGCGAGCAGGCGCTACAGCTTCTACAGCAGC
 CTGATCAGCTACGAGGAGGACAGAGGACGGGGCTGAGCCAGGAAGAATTTGTGAAGCCCAATGAACCCAAAGACCTACTT
 CTGGAAGGTGCAGACCATGAGCCCCACCAAGGACGAGTTGCACTGCAAGGCTGGGCTACTTCTCTGACGTGGACCTGG
 AGAAGGACCTGCACTCTGGCCTGATTGGCCCCCTGTGCTGTGTCACACCAACACCTTGAACCTTGGCCATGGCAGGAGGTG
 ACTGCTCAGGAGTTTCGCCCTGTCTTCAACATCTTCGATGAGGAACAGAGCTGGTACTTCACTGAGAACATGGAGAGGAATG
 CAGGGCCCCCTGCAACATCCAGATGGAGGACCCACCTTCAAGGAGAACTACAGGTTCCATGCCATCAATGGCTACATCATGG
 ACACCTTGCCTGGCTGTGATGAGCCAGGACAGAGGATCAGGTGGTATCTGCTGAGCATGGGCGCAACGAGAATCTCAC
 AGCATCCACTTCTGCGCCAGTGTCTACTGTGAGGAAGAAGGAGGAGTACAAGATGGCCCTGTACAACCTGTACCTGGGGT
 GTTCGAAACCGTGGAGATGCTGCCAGCAAGGCCGGCATCTGGAGGGTGGAGTGCCTGATTGGGGAGCACCTGCACGCCGGCA
 TGAGCAGCCTGTCTGTTGATACAGCAACAAGTGCCAGACCCCTGGGCTGAGGCTGAGGACATCAGGAGCTTCAGAGATC
 ACTGCCCTTGGGCTAGTACGGCCAGTGGGCCCCAAGCTGGCCAGGCTGCACTACTCCGGAAGCATCAATGGCTGGAGACCAA
 GGAGCCCTTCAGCTGGATCAAAGTGGACCTGCTGGCCCCCATGATCATCCAGGCATCAAGACCCAGGGGGCCAGGCAGAAGT
 TCTCCAGCCTGTACATCAGCCAGTTTCATCATGTACAGCCTGGACGGCAAGAAGTGGCAGACCTACAGGGGCAACAGCACC
 GGCACCTGTATGGTGTCTTCGGCAACGTGGACAGCAGCGGCATCAAGCACACATCTCAACCCCCCATCATCGCCAGATA
 CATCAGGCTGCACCCACCCACTACAGCATCAGGAGCACCTGAGGATGGAGCTGATGGGCTGTGACCTGAACAGCTGCAGCA
 TGCCCCCTGGGCTAGGAGAGCAAGGCCATCTCTGACGCCAGATCACTGCCTCCAGCTACTTACCAACATGTTTGGCACCTGG
 AGCCCCAGCAAGGCCAGGCTGCACCTGCAGGGCAGGAGCAATGCCGAGGCCCCAGGTCAACAACCCCAAGGAGTGGCTGCA
 GGTGGACTTCCAGAAGACCATGAAGTGAAGTGGGGTGACACCCAGGGGGTGAAGAGCTGCTGACGAGCATGTACGTGAAGG
 AGTTCTGATCTCCAGCAGCCAGGACGGCCACCAAGTGGACCTGTCTTCCAGAATGGCAAGGTGAAGGTGTTCCAGGGCAAC
 CAGGACAGCTTACCCCTGTGGTCAACAGCCTGGACCCCCCTGTGACGAGATACCTGAGGATCCACCCAGAGCTGGGT
 GCACAGATCGCCCTGAGGATGGAGGTGCTGGGCTGTGAGGCCAGGACCTGTACTGA

Subrayado sólido = coFVIII-62-NT58 (SEQ ID NO: 9)

Subrayado punteado = coFVIII-62-CT (SEQ ID NO: 10)

FIG. 1G: coFVIII-25 – SEQ ID NO: 5

ATGCAGATTGAGCTGAGCACCTGCTTCTTCTGTGCTGCTGAGGTTCTGCTTCTCTGCCACCAGGAGATACTACCTGGGCGC
 CGTGGAGCTGAGCTGGGACTACATGCAGTCTGACCTGGGCGAGCTGCCAGTGGACGCCAGGTTCCCCCCCAGAGTGCCCAAGA
 GCTTCCCTTCAACACCAGCGTGGTGTACAAGAAGACCCTGTTCGTGGAGTTCACTGACCACCTGTTCAACATCGCCAAAGCCC
 AGGCCCCCTGGATGGGCTGCTGGGCCCCACCATCCAGGCCGAGGTGTACGACACCGTGGTTCATCACCTGAAGAACATGGC
 CAGCCACCCCTCTCCCTGCACGCCGTGGGGGTGAGTACTGGAAGGCCTCTGAGGGCGCCGAGTACGACGACCAGACCAGCC
 AGAGGGAGAAGGAGGACGACAAAGGTGTTCCCTGGGGGCGAGCCACACCTACGTGTGGCAGGTCTGAAGGAGAACGGCCCCATG
 GCCTCTGACCCCTGTGCCTGACCTACAGCTACCTGAGCCACCTGGACCTGGTGAAGGACCTGAACTCTGGCCTGATTGGGGC
 CCTGCTGGTGTGCAGGGAGGGCAGCCTGGCCAAGGAGAAGACCCAGACCTGCACAAGTTCATCCTGCTGTTCCGCGTGTTCG
 ACGAGGGCAAGAGCTGACTGATGACAGGACCTACAAGAGCCTGATGACAGGACAGGGACGCCGCCCTCTGCCAGGGCCTGGCCCAAG
 ATGCACACCGTCAACGGCTACGTCAACAGGAGCCTGCCTGGCCTGATTGGCTGCCACAGGAAGAGCGTGTACTGGCATGTGAT
 CGGCATGGGCACCACCCCTGAGGTGCACAGCATCTTCTGGAGGGCCACACCTTCTGGTCAGGAACCACAGGCAGGCCAGCC
 TGGAGATCAGCCCCATCACCTTCTGACGCCAGACCCTGTGATGGACCTGGGCCAGTTCCTGCTGTTCTGCCACATCTCC
 AGCCACCAGCAGCAGCGCATGGAGGCCCTACGTGAAAGTGGACAGCTGCCCTGAGGAGCCCCAGCTGAGGATGAAGAACACGA
 GGAGGCCGAGGACTATGATGACGACCTGACCGACAGCGAGATGGACGTGGTCAGGTTTCGACGACGACAACAGCCCCAGCTTCA
 TCCAGATCAGGAGCGTGGCCAAGAAGCACCACCAAGACCTGGGTGCATACATCGCTGCTGAGGAGGAGGACTGGGACTATGCC
 CCCCTGCTGCTGGCCCTGATGACAGGAGCTACAAGAGCCTGATGTAACAATGGCCCCAGAGGATTGGCAGGAATACAA
 GAAAGTCAGGTTTCATGGCCTACACTGATGAAACCTTCAAGACCAGGGAGGCCATCCAGCATGAGTCTGGCATCTGGGCCCCC
 TGCTGTACGGGGAGGTGGGGGACACCCTGCTGATCATCTTCAAGAACCAGGCCAGCAGGCCCTACAACATCTACCCCATGGC
 ATCACCAGCGTGAAGGCCCTGTACAGCAGGAGGCTGCCTAAGGGGGTGAAGCACCTGAAAGACTTCCCATCTCTGCTGGGGA
 GATCTTCAAGTACAAGTGGACTGTGACTGTGGAGGACGGCCCCACCAAGAGCGACCCAGGTGCCTGACCAGATACTACAGCA
 GCTTCGTCACATGAGGAGGGACCTGGCCTCTGGCCTGATTGGCCCCCTGCTGATCTGCTACAAGGAGTCTGTGGACCAGAGG
 GGCAACCAGATCATGAGCGACAAGAGGAACTGATCCTGTTCTGTCTTTCGACGAGAACAGGAGCTGGTACCTGACTGAAAA
 CATCCAGCGGTTCTTCCCAACCCCGCGGGCGTGCAGCTGGGAAGATCCTGAGTTTCAGGCATCAAACATCATGCATCCATTA
 ACGGCTACGTGTTTCGATTCGCTGCAGCTGAGCGTGTGTCTGCAGGAAGTGGCCTACTGGTACATCCTGTCCATTGGTGGCCAG
 ACTGACTTCCTGTCCGTGTTTTCTCCGGCTACAGGTTCAAGCACAAGATGGTGTACGAGGACACCCTGACCCTCTTCCCTTT
 TTCGGCGAAACTGTGTTTATGAGCATGGAGAATCCCGGCCGTGGATCTTGGGCTGCCACAACAGCGACTTCCGTAACAGAG
 GAATGACTGCTGCTCAAGGTGTCCAGCTGCGACAAGAACCCGGAGACTATTATGAGGACTCATACGAGGACATCTCCGCC
 TACCTCTGTCTCAAGAATAACGCCATTGAACCTCGGAGCTTCAAGCAGAACCCAGCTGCTTAAAGAGACATCAACGGGAGAT
 CACTAGGACCACCTGCACTGAGACAGGAGGAAATCGACTACGATGACACCATCTCGGTGAGATGAAGAAGGAGGACTTTG
 ACATCTACGACGAAGATGAAAACAGAGCCCGAGGTGCTTCCAAAAGAAAACCCGCCACTACTTTATTGCTGCTGTGAGCGG
 CTGTGGGACTACGGAATGTGCTCTCGCCGACGTGCTCCGCAACCGAGCCAGAGCGGCTCGGTGCCGAATTCAGAAGGT
 CGTGTTCAGGAGTTCACTGACGGGAGCTTCACTCAGCCTTTGTACCGGGGAGAACTCAATGAACATCTCGGCCTCTCGGAC
 CTTACATCAGAGCAGAAGTGAAGATAACATCATGGTCACTTTCCGTAACCAAGCCAGCCGCCGTACTCGTTCTACTCCTCC
 CTCATTCTTACGAGAGGACAGCGGCGAGGGCGCAGAACCCGCAAGAACTTCGTGAAGCCCAACGAACCAAGACCTACTT
 CTGGAAGTGCAGCATATGGCCCCGACTAAGGACGAGTTGACTGCAAGCCTGGGCTACTTCTCCGATGTGGACTTGG
 AGAAGGACGTCCACTCCGGCTCATCGGTCCCTGCTGCTGTGCCATACCAATACCCTGAACCCCGCACAGGTCGCGCAGGTG
 ACCGTGACGAGGAGTTCGCTCTGTTCTTCACTATCTTCGACGAAGTAAAGTCTGGTACTTACCAGAGACATGGAGAGGAATG
 CAGAGCCCCCTGTACATCCAGATGGAGGACCCGACGTTCAAGGAAAACCTACCGGTTCACGCCATTAACGGATACATCATGG
 ATACGCTGCCGGGTCTTGTGATGGCCAGGATCAACGGATCAGATGGTACTTATTGTCGATGGGCAGCAACGAGAACATCCAC
 TCTATTCACTTCTCGGTCTGTGTTCACTGTGCGGAAGAAGGAAGATACAAGATGGCCCTGTACAACCTTTATCCCGGAGT
 GTTCGAAACTGTGGAATGCTGCCGTGGAAGGCCGCAATTTGGCGCTGGAGTGTGATTGGAGAACATCTCCATGCGGGGA
 TGTCAACCTGTTCTCTGGTGTATAGCAACAAGTGCCAGACTCCGCTTGGGATGGCGTCAGGACACATTAGGGATTTCCAGATC
 ACTGCGTCCGGCCAGTACGGCCAATGGGCCCTAAGCTGGCCCGCCTGCATTACTCCGGATCCATTACGCGCTGGTCAACCAA
 GGAGCCATTCTCTGGATCAAGGTGGACCTTCTGGCCCCATGATTATCCACGGAATTAAGACCCAGGGGGCCCGCAGAAGT
 TCTCCTCACTGTACATCAGCCAGTTCATAATCATGTACTCCCTGGACGGAAAGAAGTGGCAAACTACAGGGGGAACAGCACC
 GGCACACTGATGGTCTTTTTTCGGAATGTGGACTCTCCGGGATTAAGCATAACATCTTCAACCTCCGATTATCGCTCGGTA
 CATTAGACTTCACCTACCCACTACAGCATTCGCTCCACCTTCGCGGATGGAAGTGTGGGCTGCGATCTGAACCTGTCAGCA
 TGCCGTTGGGAATGGATCCAAAGCAATTTCCGACGCGAGTACACCGCTCGTCTACTTTACCAACATGTTCCGACGTTGG
 TCACCGTCCAAGGCCCGGCTGCACCTCCAGGGAAGATCCAAAGCATGGCGGCCACAGGTCAACAACCTTAAGGAGTGGCTCCA
 GGTGGACTTCCAGAAAACCATGAAGGTACCGGAGTCAACAACCCAGGGAGTGAAGTGGCTGCTGACTTCTATGTAGCTCAAGG
 AGTTCCTGATCTCCAGCAGCCAGGACGGGCACCACTGGACCTGTTCTTCCAAAATGGAAGGTCAAGGTGTTTCAGGGCAAT
 CAGGATTCAATCACCCGGTGGTGAACCTCTTGTACCCCTCTGACCCGCTACCTTCGCATCCACCACAGTCTGGGT
 GCACCAGATCGCGTGAAGGATGGAGGTCTGGGATGCGAAGCCAGGACCTGTACTGA

Subrayado sólido= coFVIII-25-NT58 (SEQ ID NO: 11)

Subrayado punteado= coFVIII-25-CT (SEQ ID NO: 12)

FIG. 1H: coFVIII-26 – SEQ ID NO: 6

ATGCAGATTGAGCTGAGCACCTGCTTCTTCTGTCCTGCTGAGGTTCTGCTTCTCTGCCACCAGGAGATACTACCTGGGCGC
 CGTGGAGCTGAGCTGGGACTACATGCAGTCTGACCTGGGGCAGCTGCCAGTGGACGCCAGGTTCCCCCCCAGAGTGGCCAA
 GCTTCCCCTTCAACACCAGCGTGGTGTACAAGAAGACCTGTTCTGGAGTTCACTGACCACCTGTTCAACATCGCCAAAGCC
 AGGCCCCCTGGATGGGCTGCTGGGCCCCACCATCCAGGCGAGGCTACGACACCGTGGTATCACCCCTGAAGAACATGGC
 CAGCCACCCCTCTCCCTGCACGCCCTGGGGGTGAGCTACTGGAAGGCTCTGAGGGCGCGAGTACGACGACCAGACCAGCC
 AGAGGGAGAAGGAGGACGACAAGGTGTTCCCTGGGGGCAGCCACACCTACGTGTGGCAGGTCCTGAAGGAGAAGGGCCCATG
 GCCTCTGACCCCTGTGCTGTACCTACAGCTACCTGAGCCACGTGGACCTGGTGAAGGACCTGAACCTCTGGCCTGATTGGGGC
 CCTGCTGGTGTGACAGGGAGGGCAGCCTGGCCAAAGGAGAAGACCCAGACCCCTGCACAAGTTCATCTGCTGTTCGCCGTGTTG
 ACGAGGGCAAGAGCTGGCACTCTGAAACCAAGAACAGCCTGATGCAGGACAGGGACGCCGCCCTCTGCCAGGGCTGGCCAAAG
 ATGCACACCGTCAACGGCTACGTCAACAGGAGCCTGCCCTGGCCTGATTGGCTGCCACAGGAAGAGCGTGTACTGGCATGTGAT
 TGGCTGACGGGAGGAGTGGGGGACACCTGCTGATCATCTTGAAGAACAGGCCAGCAGGCCCTTACAACATCTACCCCATGGC
 TGGAGATCAGCCCCATCACCTTCTGACCGCCAGACCTGCTGATGGACCTGGGCCAGTTCTGCTGTTCTGCCACATCTCC
 AGCCACCAGCAGCAGCGCATGGAGGCTACGTGAAAGTGGACAGCTGCCCTGAGGAGCCCCAGCTGAGGATGAAGAACAACGA
 GGAGGCCGAGGACTATGATGACGACCTGACCGACAGCGAGATGGACGTGGTCAAGTTCGACGACGACAACAGCCCCAGCTTCA
 TCCAGATCAGGAGCGTGGCCAAGAAGCACCCCAAGACCTGGGTGCACTACATCGCTGCTGAGGAGGAGGACTGGGACTATGCC
 CCCCTGGTGTGGCCCCCTGATGACAGGAGCTACAAGAGCCAGTACCTGAACAATGGCCCCAGAGGATTGGCAGGAAGTACAA
 GAAAGTCAGTTTATGGCTACACTGATGAAACCTTCAAGACAGGGAGGCCATCCAGCATGAGTCTGGCATCTGGGCCCCC
 TGGCTGACGGGAGGAGTGGGGGACACCTGCTGATCATCTTGAAGAACAGGCCAGCAGGCCCTTACAACATCTACCCCATGGC
 ATCACCGACGTGAGGCCCTGTACAGCAGGAGGCTGCTAAGGGGTGAAGCACCTGAAAGACTTCCCCATCTGCTGGGGGA
 GATCTTCAAGTACAAGTGGACTGTGACTGTGGAGGACGGCCCCACCAAGAGCGACCCAGGTGCTGACGAGATACTACAGCA
 GCTTCGTCAACATGGAGAGGGACCTGGCCTCTGGCCTGATTGGCCCCCTGCTGATCTGCTACAAGGAGTCTGTGGACAGAGG
 GGCACACGATCATGAGCGACAAGAGGAACGTGATCTGTCTCTGTCTTCGACGAGAACAGGAGCTGGTACCTCAGTGA
 CATCCAGAGGTTCTCCCAAAACCCCGCAGGAGTGAACCTGGAGGACCTGAGTTTTCAGGCCTCGAATATCATGCACTCGATTA
 ACGGTTACGTGTTGACTCGCTGCAGCTGAGCGTGTGCTCCATGAAGTCTGCTTACTGGTACATCTGTCCATCGGCCCCAG
 ACTGACTTCTGAGCGTGTCTTTTCCGGTTACACCTTTAAGCACAAGATGGTGTACGAAGATACCCTGACCTGTTCCCTTT
 CTCGGCGGAAACGGTGTTCATGTGATGGAGAACCCTGGGTCTGTGGATTCTGGGATGCCACAACAGCGACTTTCGGAAACCGC
 GAATGACTGCCCTGCTGAAGGTGTCTCATGCGACAAGAACCAGGAGACTACTACGAGGACTCCTACGAGGATATCTCAGCC
 TACCTCTGTCCAAGAACAACCGCATCGAGCCGCGCAGCTTCAGCCAGAACCCTGCTGTGCTGAAGAGGCACAGCGAGAAAT
 TACCCGGACCCCTCCATCGGATCAGGAGGAAATCGACTACGACGACACCATCTCGGTGGAAATGAAGAAGGAAGATTTG
 ATATCTACGACGAGGACGAAAATCAGTCCCCTCGCTCATTTCCAAAAGAAAAGTACACACTACTTTATCGCCGCGGTGAAAAGA
 CTGTGGGACTATGGAATGTATCCAGCCCTCACGTCCTTCGGAACCGGGCCAGAGCGGATCGGTGCTCAGTTCAAGAAAGT
 GGTGTTCCAGGATTCAGCGACGGCAGCTTACCCAGCGCTGTACCGGGGAGAACTGAACGAAACACCTGGGCTGCTCGGT
 CCTACATCCGCGCGGAAGTGGAGGATAACATCATGGGTGACCTTCGTAACCAAGCATCCAGACCTTACTCCTTCTATTCTCC
 CTGATCTCATACGAGGAGGACGAGCGCAAGGCGCGGAGCCCGCAAGAACTTCGTCAAGCCCAACGAGACTAAGACCTACTT
 CTGAAGGTCCAACACCATATGGCCCCGACCAAGGATGAGTTTACTGCAAGGCCCTGGGCTACTTCTCCGACGTGGACCTTG
 AGAAGGATGTCCATTCCGGCTGATCGGGCCGCTGCTCGTGTGTACACCAACACCTGAACCCAGCGCATGGACGCCAGGTC
 ACCGTCCAGGAGTTTGCTGTTCTTCAACATTTTACGAGAACTAAGTCTGCTTACTTACCAGGAAATATGGAGCGAAACTG
 TAGAGCGCCCTGCAATATCCAGATGGAAGATCCGACTTCAAGGAGAACTATAGATTCCACGCCATCAACGGGTACATCATGG
 ATACTCTGCGGGGCTGGTATGGCCAGGATCAGAGGATTCCGTGGTACTTGGTGTCAATGGGATCGAACGAAAACATTCAC
 TCCATTCACTTCTCCGGTCACGTGTCACTGTGCGCAAGAAGGAGGAGTACAAGATGGCGCTGTACAATCTGTACCCCGGGGT
 GTTCGAAACTGTGGAGATGCTGCCGTCCAAGGCGGGCATCTGGAGAGTGGAGTGCCTGATCGGAGAGCACCTCCACGCGGGGA
 TGTCCACCCTCTTCTGGTGTACTCGAATAAGTGCAGACCCCGCTGGGCATGGCTCGGGCCACATCAGAGACTTCCAGATC
 ACAGCAAGCGGACAATACGGCCAATGGGCGCCGAAGCTGGCCCCGCTTGCACTACTCCGGATCGATCAACGCATGGTCCACCA
 GGAACCGTTCTCGTGGATTAAAGTGGACCTCCTGGCCCCATGATTATCCACGGAATTAAGACCCAGGGCGCCAGGCAGAAAT
 TCTCTCCCTGTACATCTCGCAATTCATCATGTACAGCTGGACGGGAAGAAGTGGCAGACTTACAGGGGAAACTCCACC
 GGCACCCCTGATGGTCTTTTTCGGCAACGTGGATTCTTCCGGCATTAAAGCACAACTCTTCAACCCACCGATCATAGCCAGATA
 TATTAGGCTCCACCCACTCACTACTCAATCCGCTCAACTCTTCGGATGGAACATATGGGGTGGCAGCTGAACCTCTGCTCCA
 TGCCGTGGGGATGGAATCAAAGGCTATTAGCGACGCCAGATCACCGCGAGCTCTACTTCACTAACATGTTGCCACCTGG
 AGCCCTCCAAGGCCAGGCTGCATTGACAGGGACGGTCAATGCTGCGGCGCGCAAGTGAACAATCCGAAGGAATGGCTTCA
 AGTGGATTTCAAAAGACCATGAAAGTGACCGGAGTCAACCCAGGGAGTGAAGTCCCTTCTGACCTCGATGTATGTGAAGG
 AGTTCTCTGATTAGCAGCAGCCAGGACGGGACAGTGGACCTGTTCTTCCAAAACGGAAAGGTCAAGGTGTTCCAGGGGAAC
 CAGGACTCGTTACACCCGTGGTGAACCTCCTGGACCCCCACTGCTGACGCGGTACTTGAGGATTATCTCTCAGTCTGGGT
 CCATCAGATTGCATTGCGAATGGAAGTCTTGGGCTGCGAGGCCAGGACCTGTACTGA

Subrayado sólido = coFVIII-26-NT58 (SEQ ID NO: 13)

Subrayado punteado = coFVIII-26-CT (SEQ ID NO: 14)

**FIG. 11: BDD-FVIII (no optimizado; "parental"),
Secuencia de nucleótidos (SEQ ID NO: 16)**

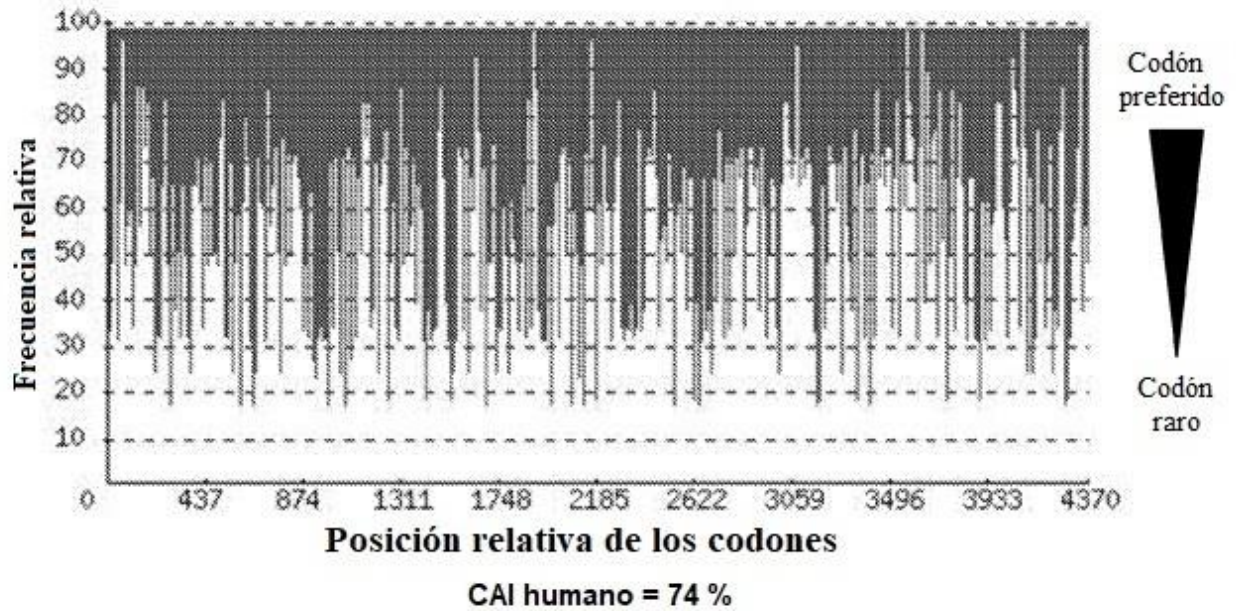
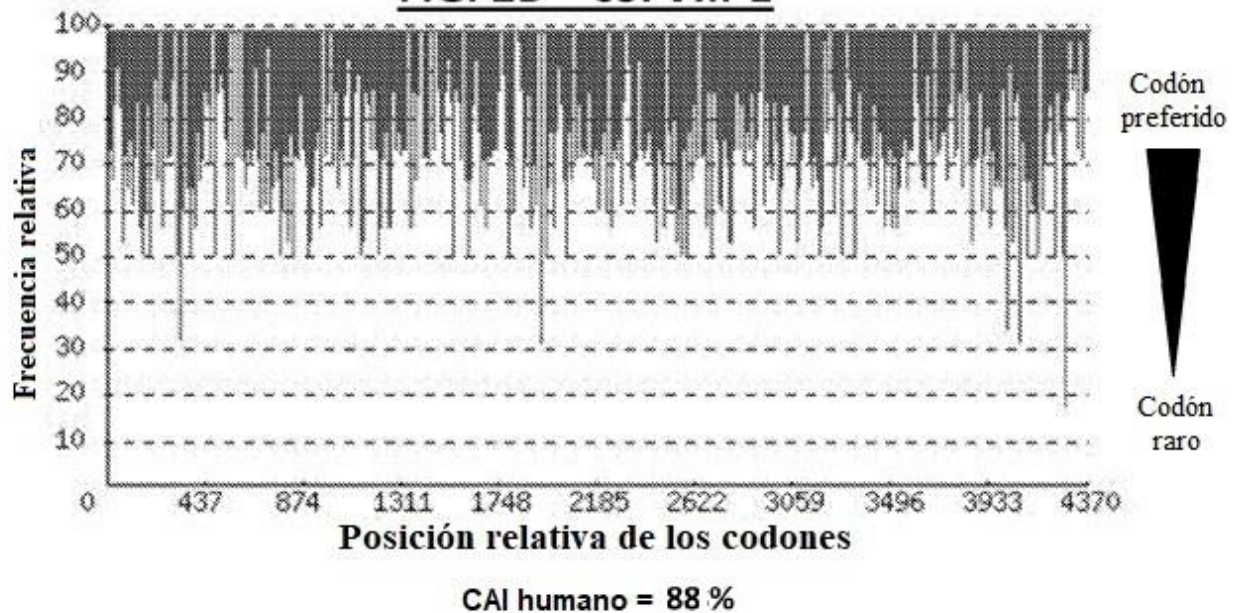
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AGTCTTCATGCTGTTGGTGATCCTACTGGAAGCTTCTGAGGGAGCTGAATATGATGATCAGACCAGTCAAAGGGAGAAAAGAA
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GCCTTACCTACTCATATCTTTCTCATGTGGACCTGGTAAAGACTTGAATTCAGGCCTCATTGGAGCCCTACTAGTATGTAGAGAA
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CACTCAATATTCTCGAAGGTCACACATTTCTGTGAGGAACCATCGCCAGGCGTCTTGGAAATCTCGCCAATAACTTTCTTACT
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TGGGTACATTACATTGCTGTGAAGAGGAGGACTGGGACTATGCTCCCTAGTCTCGCCCCGATGACAGAAGTTATAAAGTCA
AATATTTGAACAATGGCCTCAGCGGATTGGTAGGAAGTACAAAAAGTCCGATTTATGGCATAACAGATGAAACCTTTAAGAC
TCGTGAAGCTATTGACATGAATCAGGAATCTTGGGACCTTACTTTATGGGGAAGTTGGAGACACACTGTTGATTATATTTAAGA
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TCTGCTACAAAGAATCTGTAGATCAAAGAGGAAACAGATATGTGACAGCAAGAGGAATGTCATCCTGTTTTCTGTATTTGATGA
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ACTCTTCGATGGAGTTGATGGCTGTGATTTAAATAGTTGACAGATGCCATTGGGAATGGAGAGTAAAGCAATATCAGATGCAC
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CCTGGAGACCTCAGGTGAATAATCCAAAAGAGTGGCTGCAAGTGGACTTCCAGAAGACAATGAAAGTCACAGGAGTAATACTC
AGGGAGTAAAATCTCTGCTTACCAGCATGTATGTGAAGGAGTTCTCATCTCCAGCAGTCAAGATGGCCATCAGTGGACTCTCTT
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TCGCTACCTTCGAATTCACCCCAAGAGTTGGGTGCACCAGATTGCCCTGAGGATGGAGGTTCTGGGTGCGAGGCACAGGACCTC
TAC

*BDD-FVIII = FVIII con dominio B eliminado

FIG. 1J: BDD-FVIII (no optimizado; "parental"),
Secuencia de aminoácidos (SEQ ID NO: 17)

ATRRYYLGAVELSWDYMQSDLGELPVDARFPPRVPKSFPFNTSVVYKKTLEFVEFDHLFNIAPRPPWMGLLGPTIQAEVYDVTVITLK
 NMASHPVSLHAVGVSYWKASEGAEYDDQTSQREKEDDKVFPGGSHYVWQVLKENGPMASDPLCLTYSYLSHVDLVKDLNSGLIGA
 LLVCREGLAKEKTQTLHKFILLFAVFDEGKSWHSETKNSLMQDRDAASARAWPKMHTVNGYVNRSLPGLIGCHRKSVYWHVIGMGT
 TPEVHSIFLEGHTFLVRNHRQASLEISPITFLTAQTLMDLGQFLFCHISSHQHDGMEAYVKVDSCPEEPQLRMKNNEEAEDYDDDLT
 DSEMDVVRFDNNSPSFIQIRSVAKKHPKTWVHYIAAEEEDWDYAPLVLPDDRYSYKSYLNNGPQRIGRKYKKVRFMAYTDETFKTR
 EAIQHESGILGPLLYGEVGDITLLIIFKNQASRPYNIYPHGITDVRPLYSRRLPKGVKHLKDFPILPGEIFKYKWTVTVEDGPTKSDPRCLTRY
 SSFVNMERDLASGLIGPLLYCYKESVDQGRNQIMSDKRNVLFSVFDENRSWYLTENIQRFLPNPAGVQLEDPEFQASNIMHSINGYVF
 DSLQLSVCLHEVAYWYILSIGAQTDFLSVFFSGYTFKHKMVYEDTLTLPFSGETVFMSENPGLWILGCHNSDFRNRGMTALLKVSSC
 DKNTGDYEDSYEDISAYLLSKNNAIEPRSFQNPVLRHQREITRTTLQSDQEEIDYDDTISVEMKKEDFDIYDEDENQSPRSFQKKTR
 HYFIAAVERLWDYGMSSSPHVLNRNAQSGSVQFKKVVFEFTDGSFTQPLYRGELNEHLGLLGPYIRAEVEDNIMVTFRNQASRPYSF
 YSSLISYEEDQRQGAEPKRFVKNPNETKTYFWKVQHMAPTKDEFDCKAWAYFSDVDLEKDVHSGLIGPLLVCHTNTLNPAHGRQVT
 VQEFALFFTIFDETSWYFTENMERNCRAPCNIQMEDPTFKENYRFAINGYIMDTLPGLVMAQDQIRWYLLSMGSNENIHSIHSG
 HVFTVRKKEEYKALYNLYPGVFETVEMLPSKAGIWRVECLIGEHLHAGMSTLFLVYSNKCQTPLGMASGHIRDFQITASGQYQQWA
 PKLARLHYSGSINAWSTKEPFSWIKVDLLAPMIIHGIKTQGARQKFSSLYISQFIIMYSLDGKKWQTYRGNSTGTLMVFFGNVDSSGIKH
 NIFNPPIARYIRLHPHYSIRSTLRMELMGCDLNSCSMPLGMESKAISDAQITASSYFTNMFATWSPSKARLHLQGRSNAWRPQVNNP
 KEWLQVDFQKTMKVTGVTQGVKSLTSMYVKEFLISSQDGHQWTLFFQNGKVKVFQGNQDSFTPVVNSLDPPLTRYLRIHPQSW
 VHQAIRMEVLGCEAQDLY

***BDD-FVIII = FVIII con dominio B eliminado**

FIG. 2A - FVIII BDD no optimizado**FIG. 2B – coFVIII-1**

BDD FVIII = FVIII con dominio B eliminado

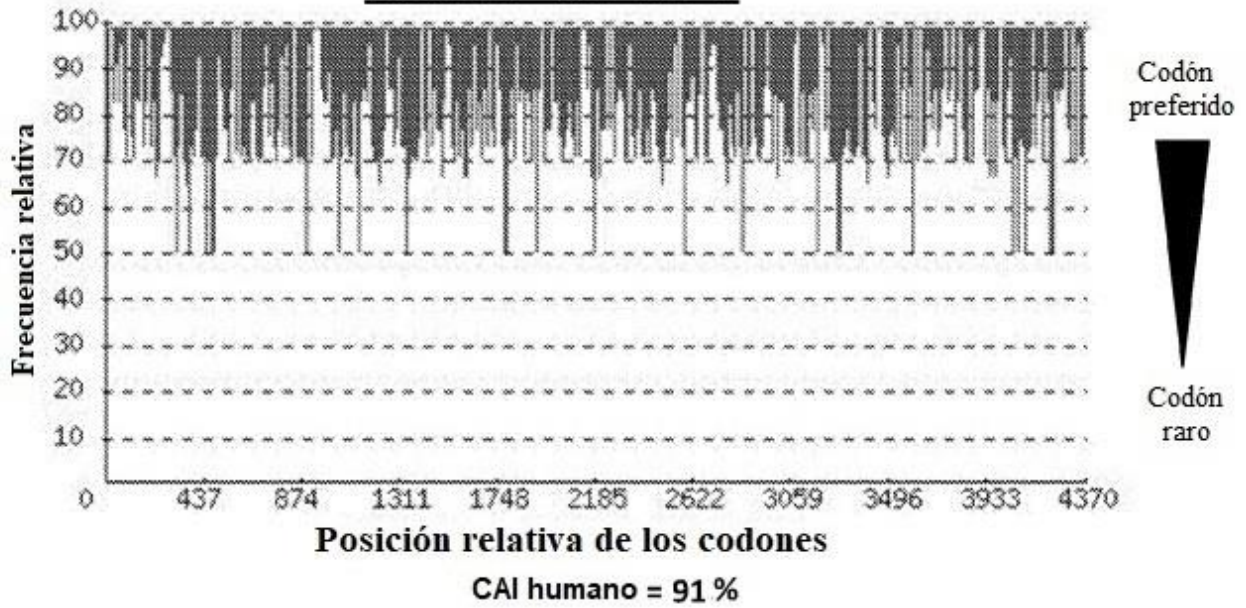
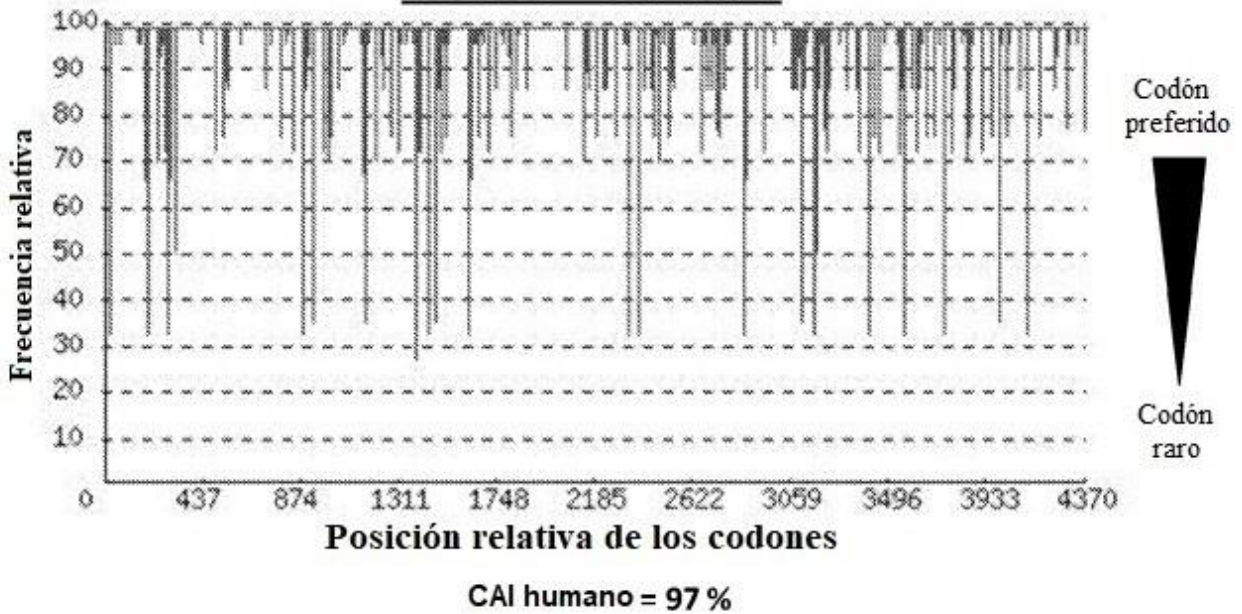
FIG. 2C – coFVIII-3**FIG. 2D – coFVIII-4**

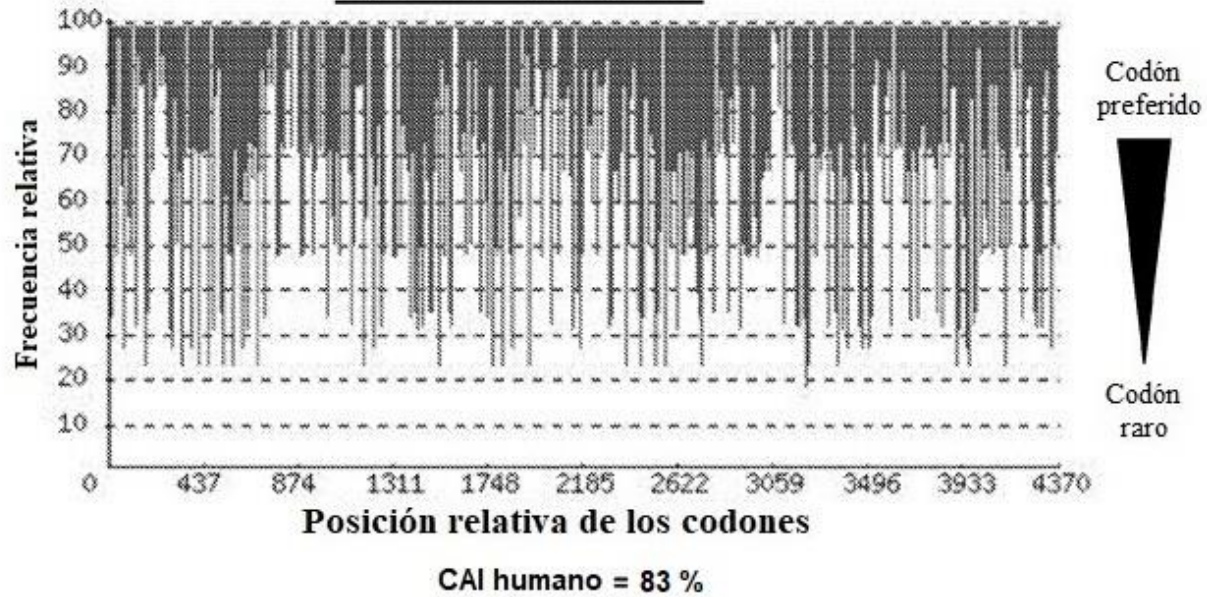
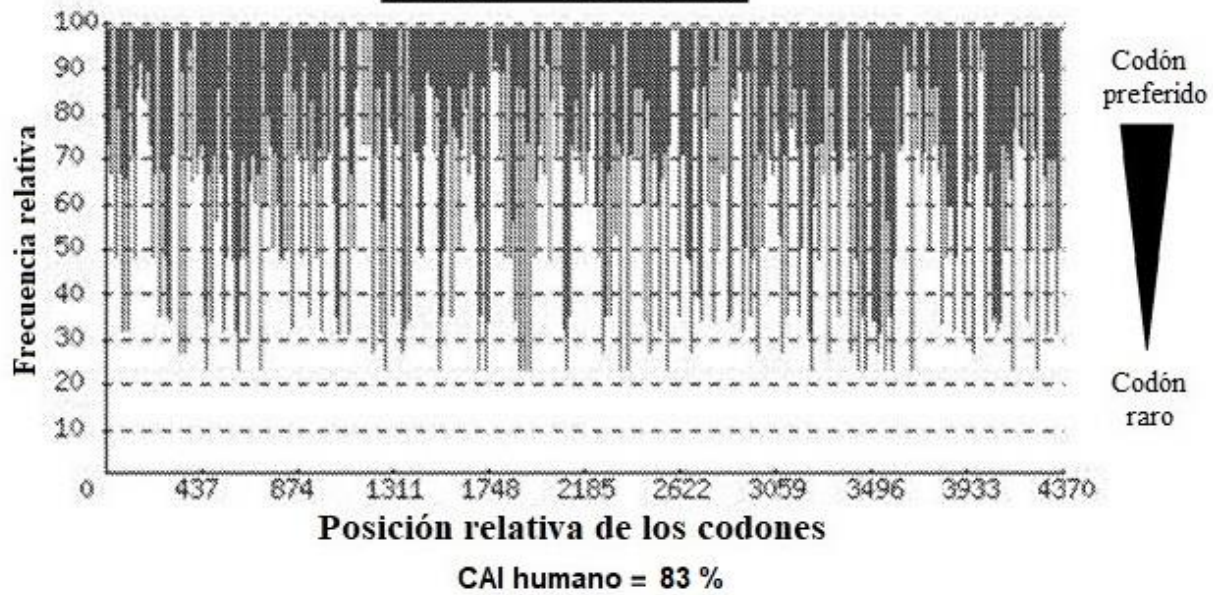
FIG. 2E – coFVIII-5**FIG. 2F – coFVIII-6**

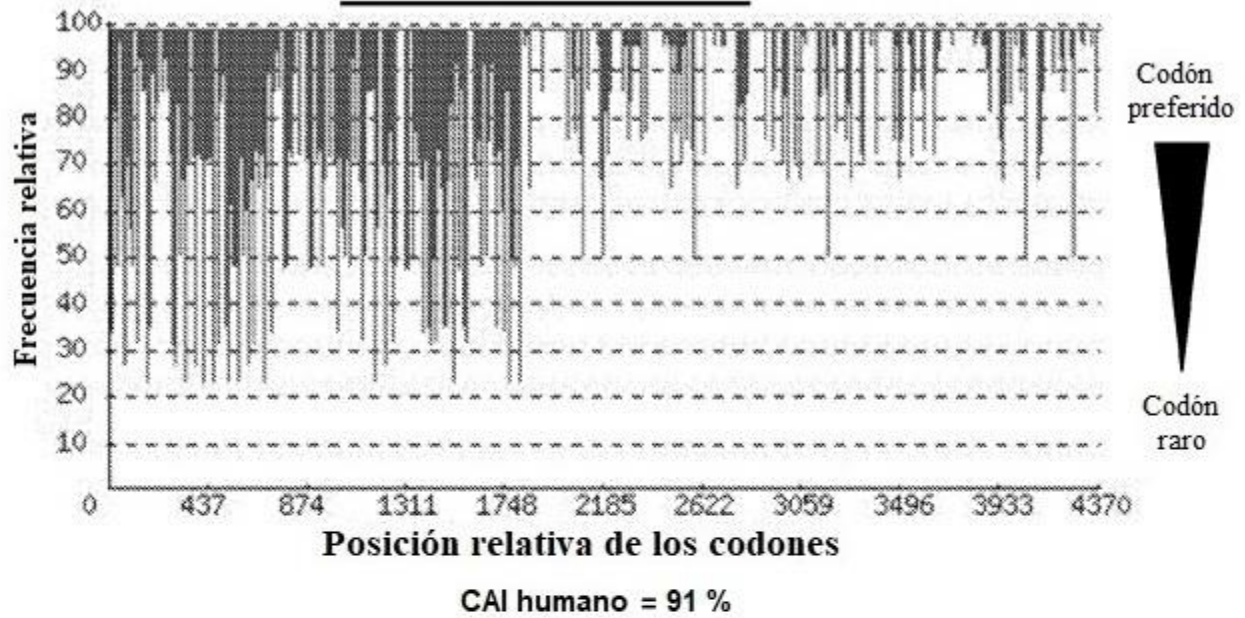
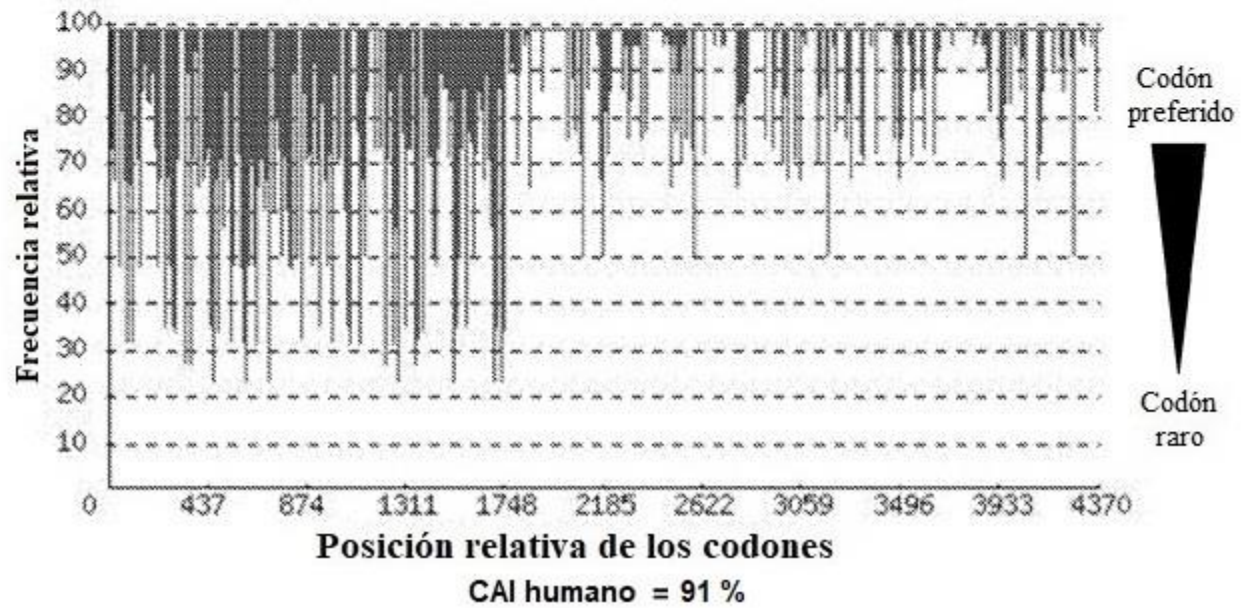
FIG. 2G – coFVIII-52**FIG. 2H – coFVIII-62**

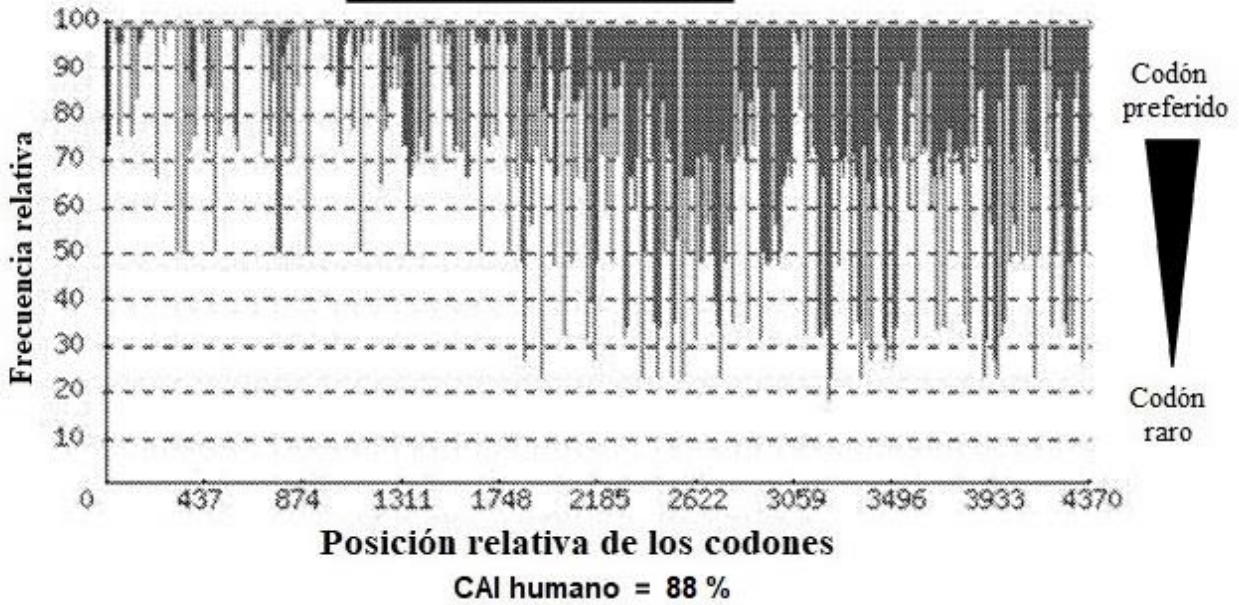
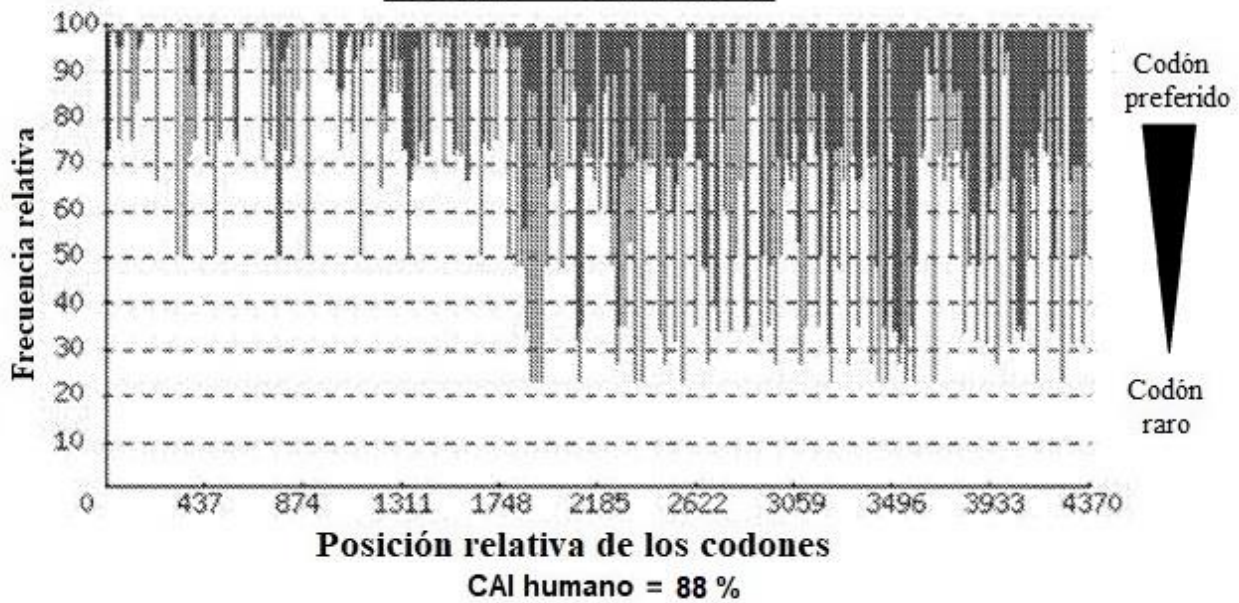
FIG. 2I – coFVIII-25**FIG. 2J – coFVIII-26**

FIG. 3: Mapas del plásmido de plásmidos de expresión de FVIII optimizados con codones

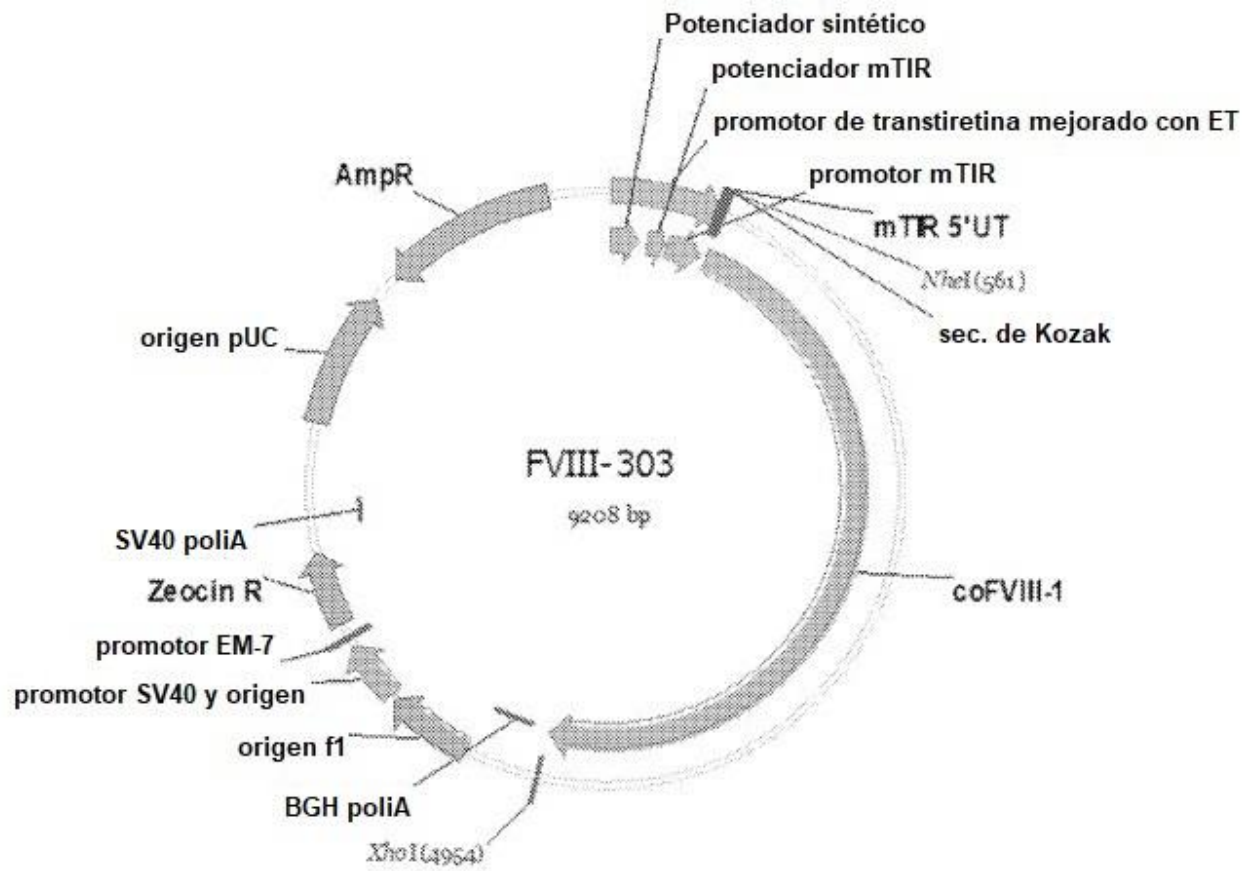


FIG. 4: Actividad de FVIII en ratones con Hema

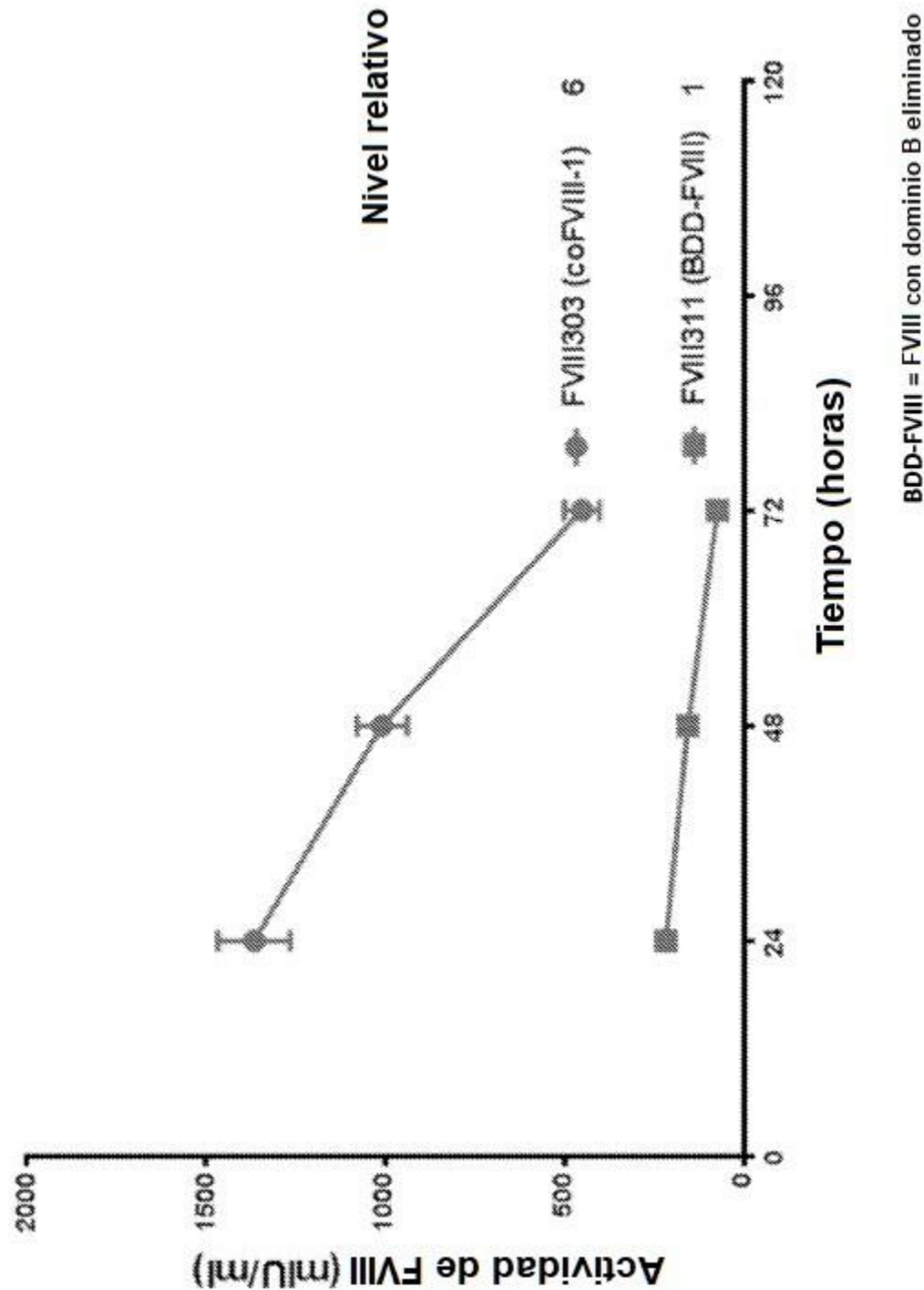
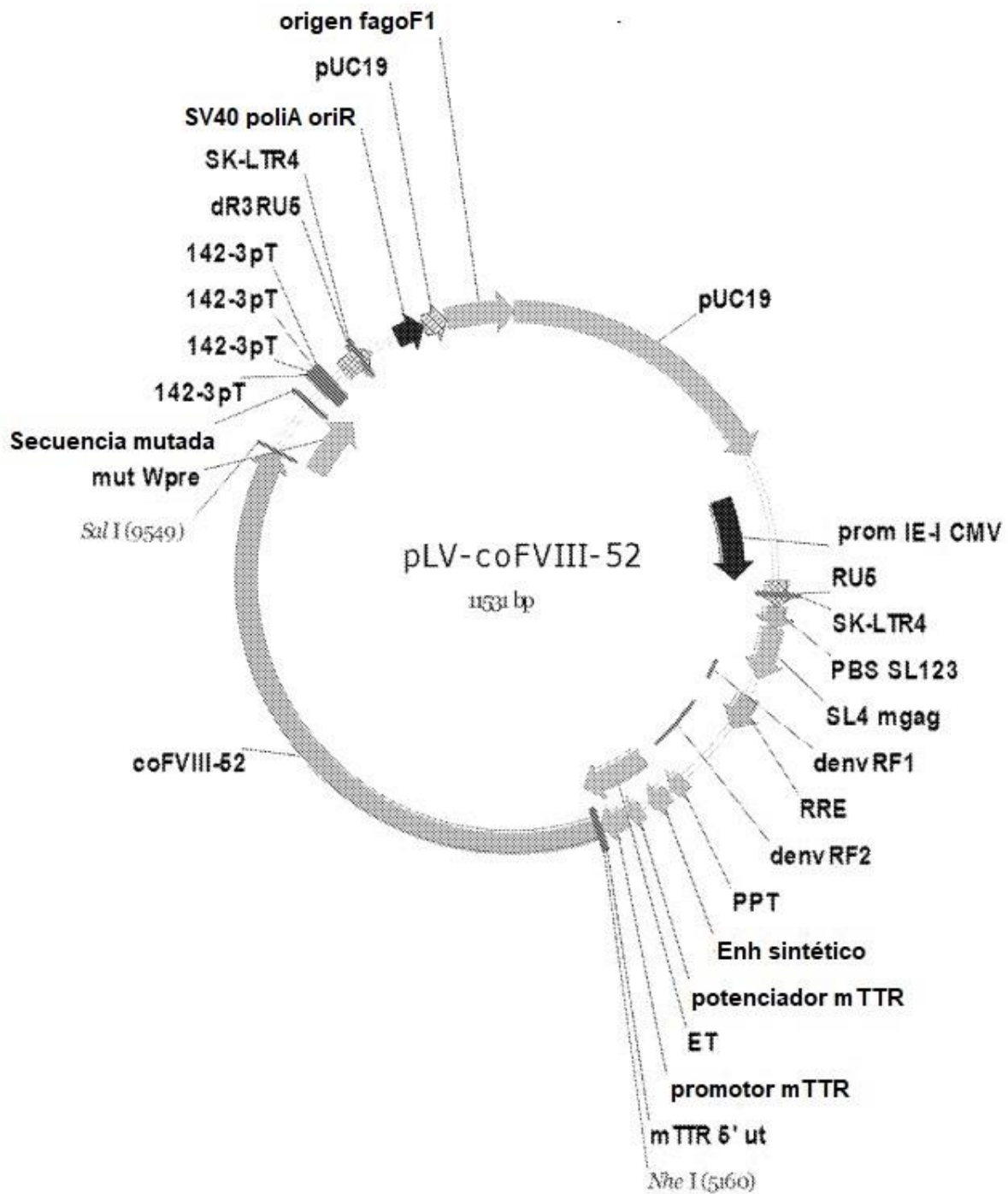


FIG. 5: Mapas del plásmido de plásmidos de expresión de FVIII optimizados con codones



**FIG. 6A: coFVIII-3, coFVIII-4, coFVIII-5, y coFVIII-6
relativos a coFVIII-1**

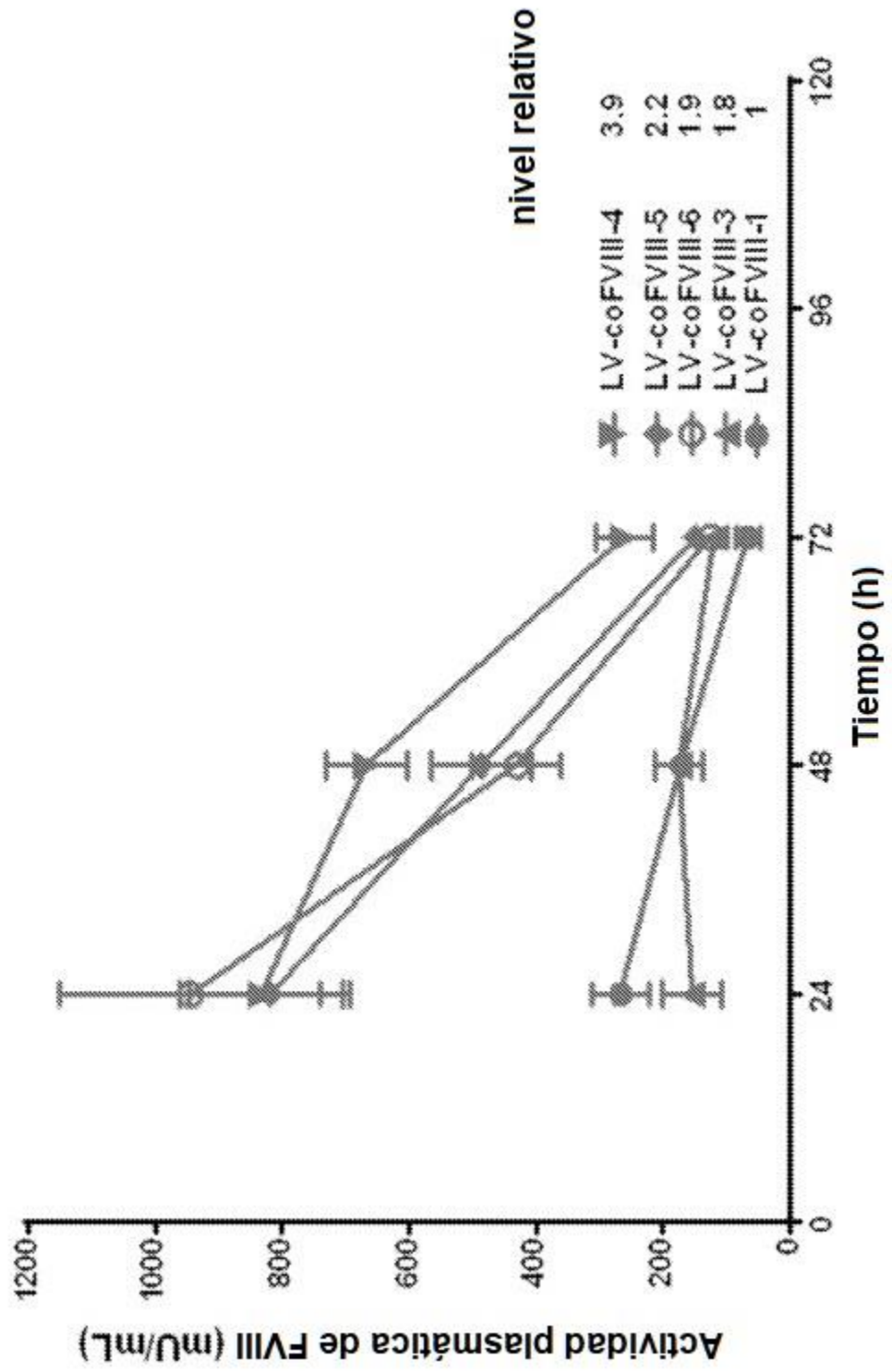


FIG. 6B: coFVIII-25 y coFVIII-26 relativo a coFVIII-1

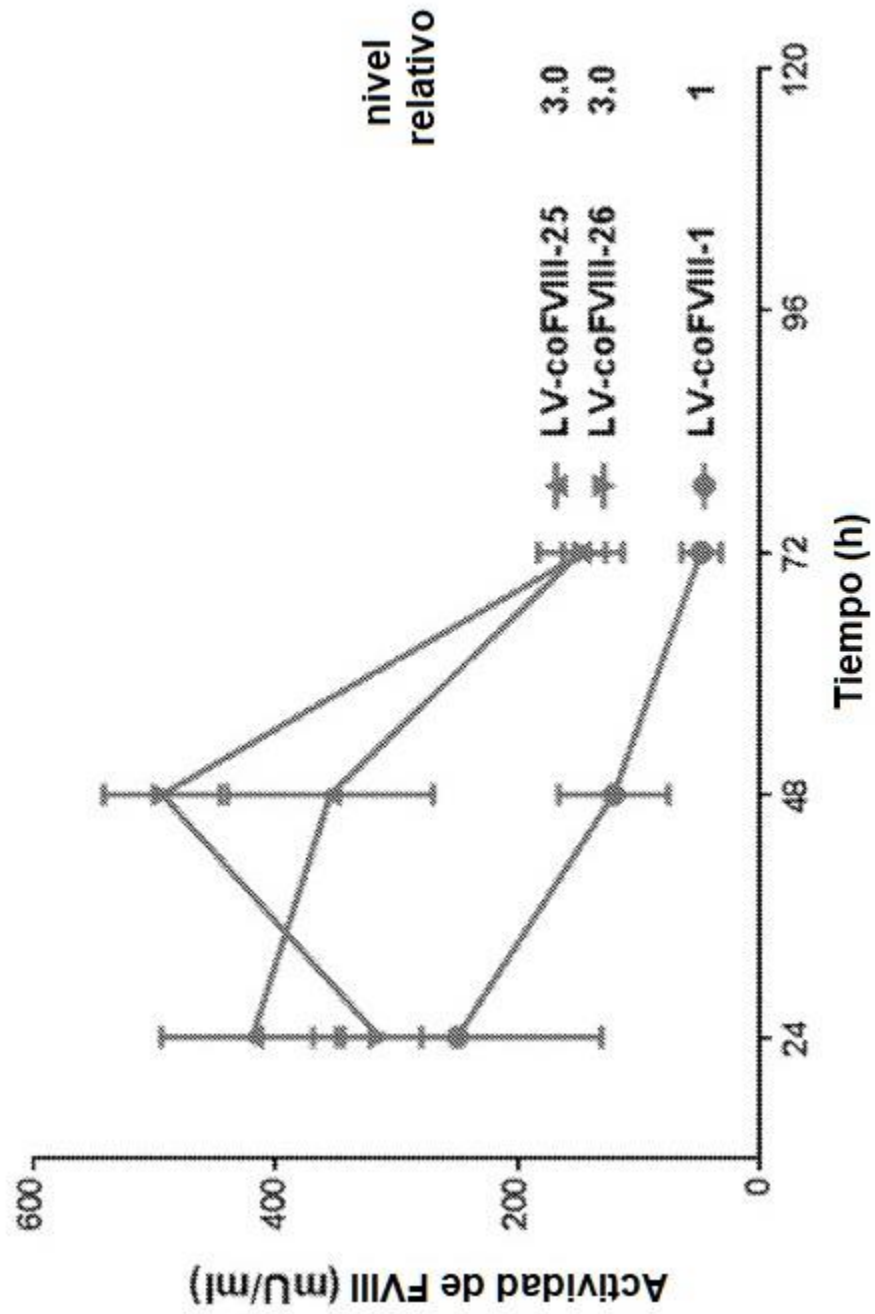


FIG. 6C: coFVIII-52 y coFVIII-62 relativo a BDD-FVIII y coFVIII-1

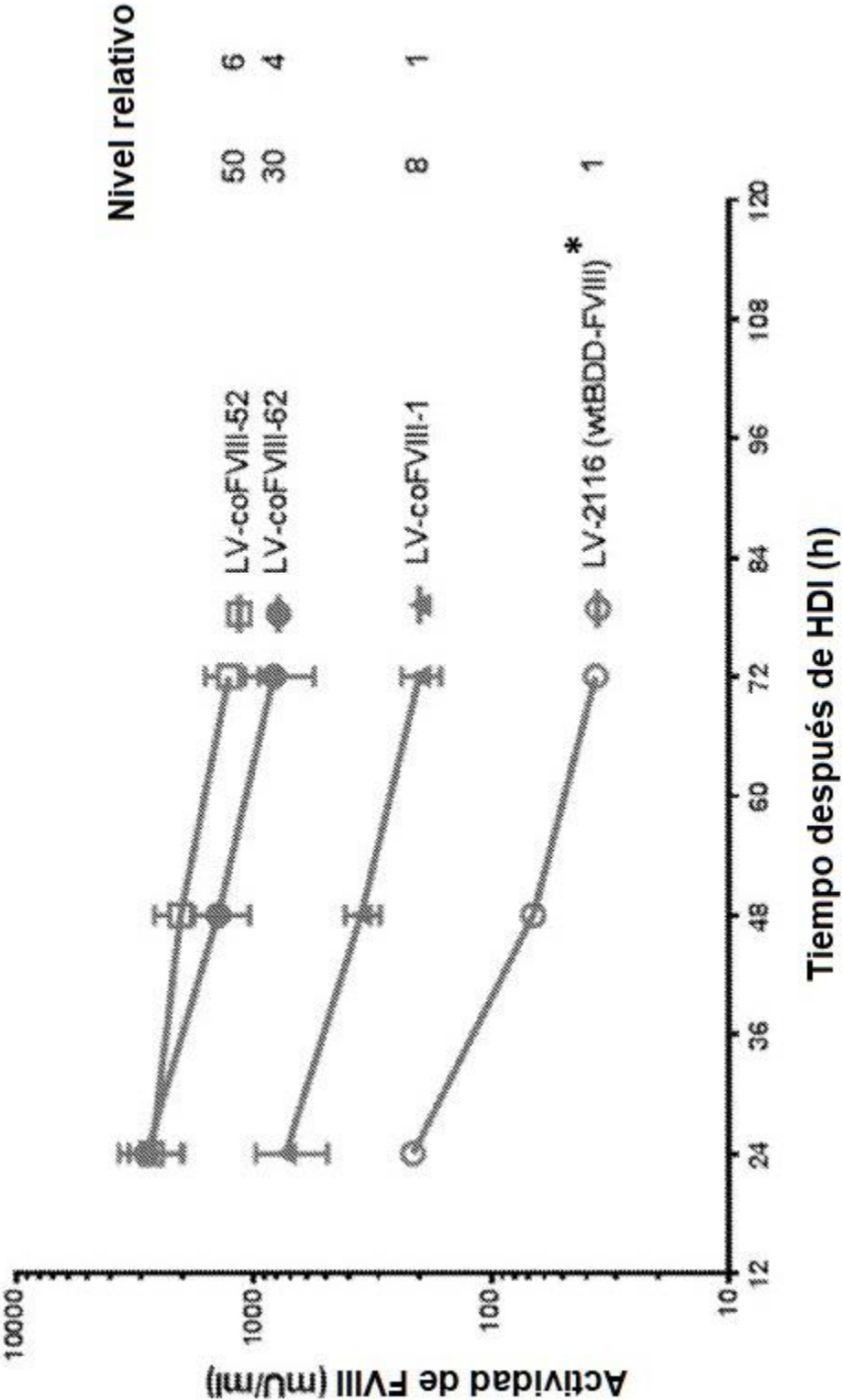
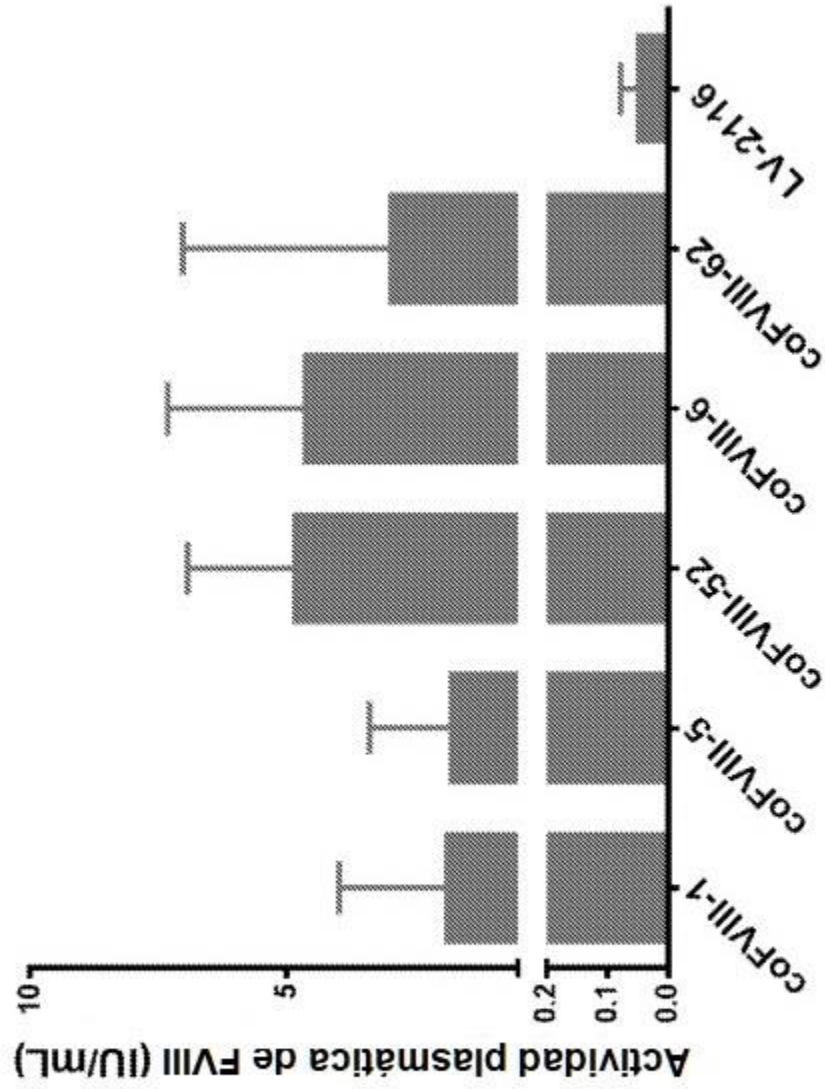


FIG. 7: Actividad de FVIII mediada con vector lentiviral en ratones con Hema



*LV-2116 = FVIII con dominio B eliminado bajo el promotor ET en el plásmido lentiviral

FIG. 8A: coFVIII-52-XTEN – SEQ ID NO: 19

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 GGGCTGTTGGGACCTACCATCAAGCGGAGGTGTACGACCTGTGGTCATCACTCTGAAGAACATGGCCTCGCATCCCGTGTCCCTGC
 ACGCCGTGGGAGTGTCTTACTGGAAAGCGTCCGAGGGGGCGAATGACGACGACCACTCGCAGAGAGAAAAGGAAGATGACAAGGT
 GTTCCCAGGAGGATCGCACACCTACGTGTGGCAAGTGTGAAGGAGAACGGCCCAATGGCCTCCGACCCGCTGTGCCTGACCTACTCG
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 GGATGGAGCTGATGGGCTGTGACCTGAACAGCTGCAGCATGCCCCCTGGGCATGGAGAGCAAGGCCATCTCTGACGCCCAGATCACTGC
 CTCCAGCTACTTCAACACATGTTTGCCACCTGGAGCCCCAGCAAGGCCAGGCTGCACCTGCAGGGCAGGAGCAATGCCTGGAGGCC
 CAGGTCAACAACCCCAAGGAGTGGCTGCAGGTGGACTTCCAGAAGACCATGAAGGTGACTGGGGTGAACCCAGGGGGTGAAGAGCC
 TGCTGACCAGCATGTACGTGAAGGAGTTCCTGATCTCCAGCAGCCAGGACGGCCACCAGTGGACCTGTTCTTCCAGAATGGCAAGGT
 GAAGGTGTTCCAGGGCAACAGGACAGCTTCAACCTTGTGTTCAACAGCTGGACCCCTGCTGACCAAGATACCTGAGGATCCAC
 CCCCAGAGCTGGGTGCACAGATCGCCCTGAGGATGGAGGTGCTGGGCTGTGAGGCCAGGACCTGTACTGA

Subrayado = secuencia de nucleótidos XTEN (SEQ ID NO: 18)

FIG. 8B: coFVIII-1-XTEN – SEQ ID NO: 20

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 CAACACTAGCGTGGTCTACAAGAAAACACTGTTCTGTGGAGTTTACTGATCACCTGTTCAACATCGCAAAGCCTAGGCCACCCTGGATG
 GGACTGCTGGGGCCAACAATCCAGGCCGAGGTGTACGACACCGTGGTCATTACACTTAAGAACATGGCCTCACACCCCTGAGCCTGC
 ATGCTGTGGGCGTCAGCTACTGGAAGGCTCCGAAGGAGCAGAGTATGACGATCAGACTTCCAGAGAGAAAAAGAGGACGATAAGGT
 GTTTCCTGGCGGATCTCATACCTACGTGTGGCAGGTCTGAAAGAGAATGGCCCTATGGCCTCCGACCCTCTGTGCTGACCTACTCT
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 GCAGTTCCCTGCTGTTTTGCCACATCAGCTCCACACGATGATGGCATGGAGGCTTACGTGAAAGTGGACTCTGTGCCGAGGAACCT
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 ATAACAGCCCTCCTTTATCCAGATTAGATCTGTGGCAAGAAACCCCTAAGACATGGGTCCATTACATCGCAGCCGAGGAAGAGGA
 CTGGGATTATGCACCACTGGTGTGGCACCAGACGATCGCTCTACAAATCTCAGTATCTGAACAATGGGCCACAGAGGATTGGCAGA
 AAGTACAAGAAAGTGGGTTCTATGGCATATACCGATGAGACCTTCAAGACTCGCGAAGCCATCCAGCAGAGAGCGGCATCCTGGGAC
 CACTGCTGTACGGAGAAGTGGGAGACACCCTGCTGATCATTTTCAAGAACAGGCCAGCCGGCTTACAATATCTATCCACATGGGAT
 TACAGATGTGCGCCCTCTGTACAGCAGGAGACTGCCAAAGGCGTCAAACACCTGAAGGACTTCCCAATCCTGCCCGAGAAATCTTC
 AAGTACAAGTGGACTGTACCGTCGAGGATGGCCCACTAAGAGCGACCCCTCGGTGCTGACCCGCTACTATTCTAGTTTCGTGAATA
 TGGAAAGAGATCTGGCAAGCGGACTGATCGGACCACTGCTGATTTGTTACAAAGAGAGCGTGGATCAGAGAGGCAACAGATCATGTC
 CGACAAGCGGAATGTGATTCTGTTGAGTGTCTTTGACGAACACAGTCTGTTGCTGTCACAAACAAATGCCATTGAACCCGGCTCTTTAGTCA
 CCAGCTGGGGTGCAGCTGGAAAGATCCTGAGTTTCAGGCATCTAACATCATGATATTAATGGCTACGTGTTTCGACAGTTTGCAGC
 TGAGCGTGTGCTGCACGAGGTGCTTACTGGTATATCTGAGCATTGGGGCACAGACAGATTTCCTGAGCGTGTCTTTTCCGGCTA
 CACTTTTAAAGCATAAAATGGTCTATGAGGACACACTGACTCTGTTCCCTTCAGCGGCGAAACCGTGTATTATGAGCATGGAGAATCCC
 GGACTGTGGATTCTGGGGTGCCACAACAGCGATTTCAGAAATCGCGGAATGACTGCCCTGCTGAAAGTGTCAAGCTGTGACAAGAAC
 CCGGGGACTACTATGAAGATTATACGAGGACATCAGCGCATATCTGCTGTCCAAACAAATGCCATTGAACCCGGCTCTTTAGTCA
 GAATGGCGCGCCAAATCAGAGAGCGCCACCCTGAAAGTGGTCCCGGAGCGAGCCAGCCACATCTGGGTGCGAAACGCCAGGCACA
AGTGAGTCTGCAACTCCCGAGTCCGGACCTGGCTCCGAGCCTGCCACTAGCGGCTCCGAGACTCCGGGAACCTCCGAGAGCGCTACAC
CAGAAAGCGGACCCGGAACAGTACCAGAACCTAGCGAGGCTCTGCTCCGGGCGAGCCAGCCGGCTCTCTACATCCAGGAGGAGGG
CACCTCCGAATCCGCCACCCCGAGTCAAGGCGAGGATCTGAACCCGCTACCTCAGGCAGTGAGACGCCAGGAACGAGCGAGTCCGCT
ACACCGGAGAGTGGGCCAGGGAGCCCTGCTGGATCTCCTACGTCCTCAGTGAAGGAGGTACCCAGCGGGCTCGCCACACGCACTGAAG
 AAGGTGCCCTCGAGCCCTCCAGTGTGAAGCGGCACAGCGGAGATCACCCGCACTACCCTGCAGAGTGATCAGGAAGAGATCGACTA
 CGAGATACAATTTCTGTGAAATGAAGAAAGAGGACTTCGATATCTATGACGAAGATGAGAACCAGAGTCTCGATCATTCCAGAAG
 AAAACAGGCATTACTTTATTGCCCGAGTGGAGCGGCTGTGGGATTATGGCATGTCTCTAGTCTCAGTGTGCGAAATAGGGCCC
 AGTCAGGAAGCGTCCACAGTTCAAGAAAGTGGTCTTCCAGGAGTTTACAGACGGGTCTTTACTCAGCCACTGTACAGGGGCGAAT
 GAACGAGCACCTGGGACTGCTGGGCCCTATATCAGAGCATATGAGGATAACATTATGGTCACTTCAGAAATCAGGCCTCTCGG
 CCTTACAGTTTTTATTCAAGCCTGATCTCTTACGAAGAGGACCAGCGACAGGGAGCTGAACCAAGAAAAAATCTCGTGAAGCCTAATG
 AGACCAAAACATACTTTTGAAGGTGCAGCACCATATGGCCCCAACAAAGACGAGTTCGATTGCAAGGCATGGGCCTATTTTCTGA
 CGTGGATCTGGAGAAGGACGTGCACAGTGGCCTGATTGGCCCACTGCTGGTGTGCCATATAACACCTGAATCCAGCCACGCGCCG
 CAGGTCACTGTCCAGGAGTTCGCTCTGTTCTTTACCATCTTTGATGAGACAAAGAGCTGGTACTTCACCGAAAAATGGAGCGAAAT
 GCAGGGCTCCATGTAACATTGAGATGGAAGACCCACATTCAAGGAGAACTACCGCTTTCATGCTATCAATGGATACATCATGGATAC
 TCTGCCCGGGCTGGTCTGGCACAGGACCAGAGAATCCGGTGGTATCTGCTGAGCATGGGCAGCAACGAGAATATCCACTCAATTCTAT
 TTCAGCGGCGACGTGTTTACTGTGAGGAAGAAAGAGATACAAGATGGCCCTGTACAACCTGTATCCCGCGCTGTTGGAACCGTGC
 AGATGCTGCCTAGCAAGGCCGGAATCTGGAGAGTGGAAATGCCTGATTGGAGAGCACTGCATGCTGGGATGTCTACCCTGTTTCTGGT
 GTACAGTAATAAGTGTGAGACACCCCTGGGAATGGCATCCGGGCATATCAGGGATTTCAGATTACCGCATCTGGACAGTACGGACAG
 TGGGCACCTAAGCTGGCTAGACTGCACTATTCCGGATCTATCAACGCTTGGTCCACAAAGAGCCCTTCTCTTGGATTAAAGGTGGACC
 TGCTGGCCCCAATGATCATTCTGGCATCAAACTCAGGGAGCTCGGCAGAAAGTCTCTCTCTGTACATCTCACAGTTTATCATCAT
 GTACAGCCTGGATGGGAAGAAATGGCAGACATACCGCGCAATAGCACAGGAACCTGTATGGTGTCTTTGGCAACGTGGACAGCAGC
 GGAATCAAGCACAACTTTTCAATCCCTATCATTGCTAGATACATCCGGCTGCACCCCAACCCATTATTCTATTCAAGTACACTGA
 GGATGGAACCTGATGGGATGCGATCTGAACAGTTGTTCAATGCCCTGGGGATGGAGTCCAAGGCAATCTCTGACGCCAGATTACCGC
 CAGCTCCTACTTCACTAATATGTTTGTCTACCTGGAGCCCTTCCAAAGCAAGACTGCACCTGCAAGGCCGAGCAACGCATGGCCAGCA
 CAGGTGAACAATCCCAAGGAGTGGTTCAGGTGATTTTCAAGAACTATGAAGGTGACCGGGGTCAAACTCAGGGCTGAAAAGTC
 TGCTGACCTCAATGTACGTCAAGGAGTTCCTGATCTCTAGTTCACAGGACGGACATCAGTGGACACTGTTCTTTCAGAACGGGAGGT
 GAAAGTCTTCCAGGGCAATCAGGATTCTTTACACCTGTGGTCAACAGTCTAGACCCCTCCACTGCTGACAGATACCTGAGAATCCAC
 CCTCAGTCTGGTGCACCAAGATTGCCCTGAGAATGGAAGTGTGGGATGCGAGGCCAGGATCTGTACTGA

Subrayado = secuencia de nucleótidos XTEN (SEQ ID NO:18)

Subrayado = secuencia de nucleótidos XTEN (SEQ ID NO:18)

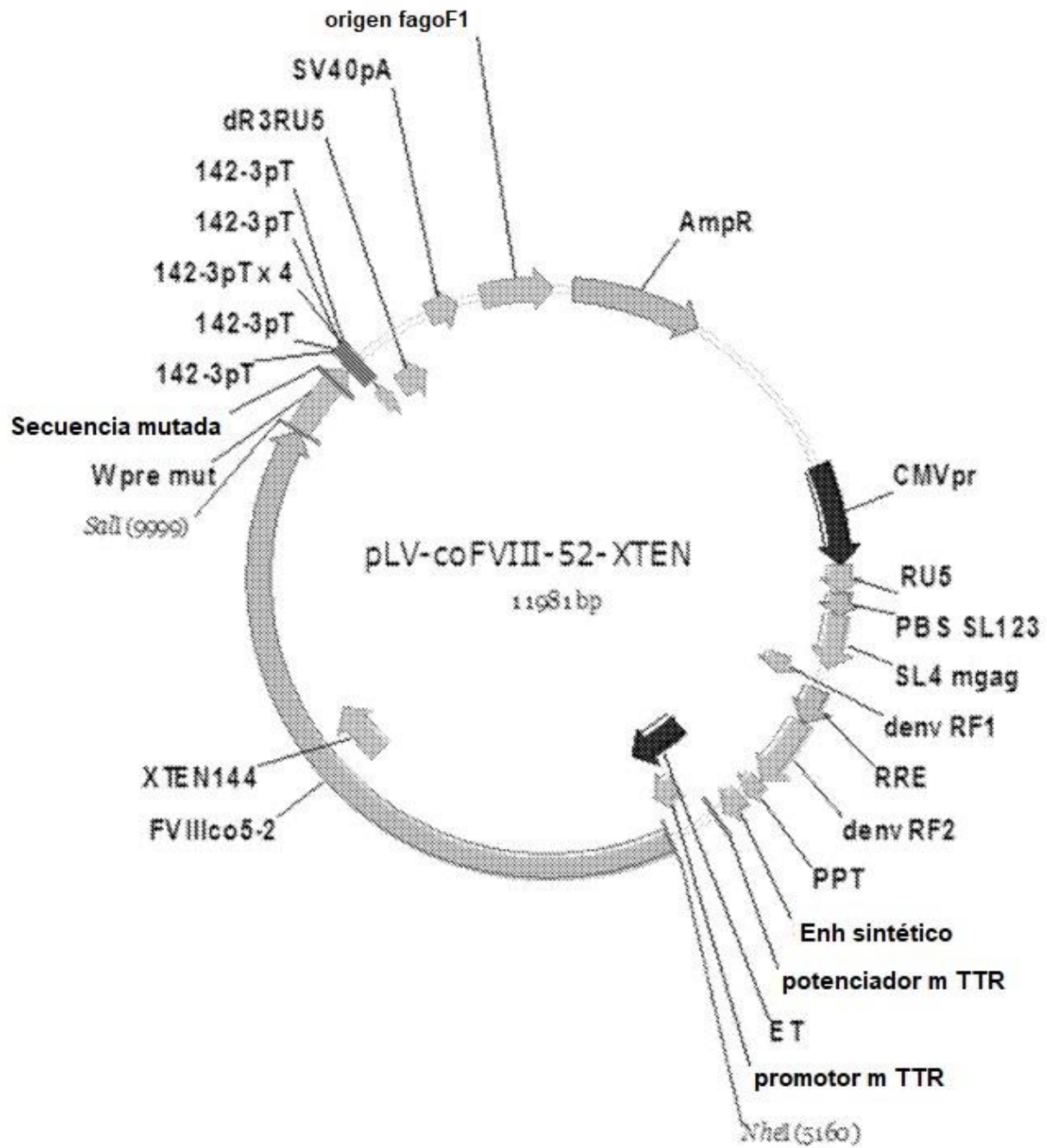
FIG. 9: Mapa del plásmido de pLV-coFVIII-52-XTEN

FIG. 10A: Actividad del FVIII en ratones con Hema después de la inyección hidrodinámica del ADN del plásmido

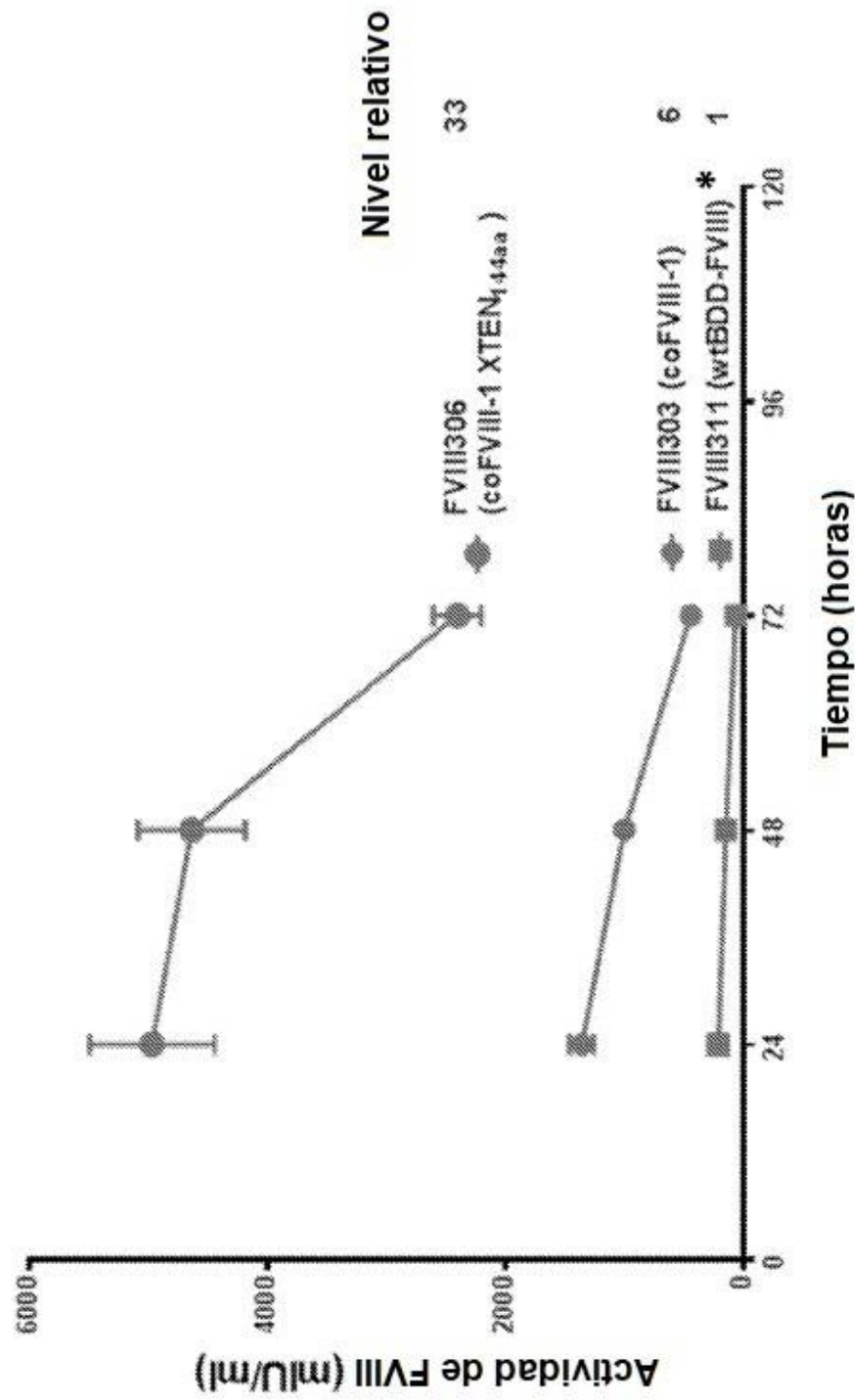
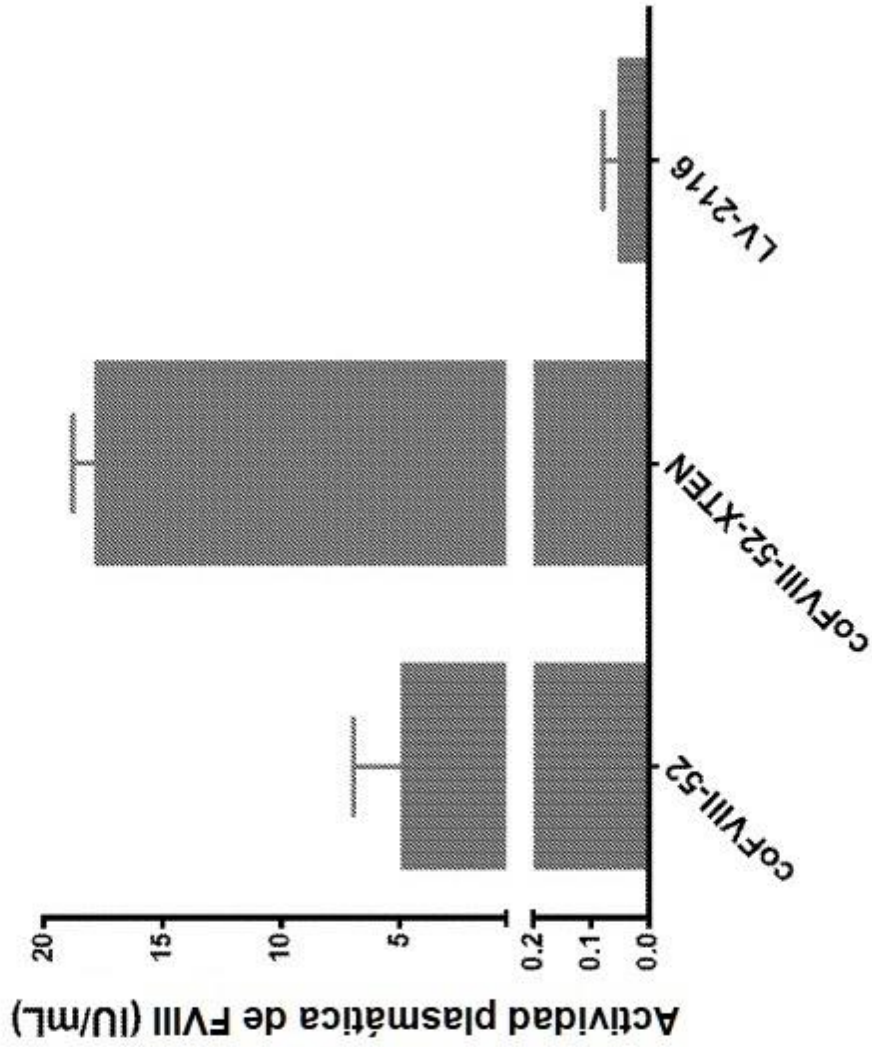


FIG.10B: Actividad de FVIII en ratones con Hema 21 días después de la inyección letiviral



*LV-2116 = FVIII con dominio B eliminado
bajo el promotor ET en el plásmido lentiviral

**FIG. 11A: Factor VIII humano, maduro de cadena completa,
Secuencia de aminoácidos (SEQ ID NO: 15)**

ATRRYYLGAVELSWDYMQSDLGELPVDARFPFPRVPKSFNFNTSVVYKKTLFVEFTDHLFNIAPRPPWMGLLGPTIQAEVYDVTWITLK
 NMASHPVSLHAVGVSYWKASEGAEYDDQTSQREKEDDKVFPGGSHYVWQVLKENGPMASDPLCLTYSYLSHVDLVKDLNSGLIGA
 LLVCREGSLAKEKTQTLHKFILLFAVFDEGKSWHSETKNSLMQDRDAASARAWPKMHTVNGYVNRSLPGLIGCHRKSVYWHVIGMGT
 TPEVHSIFLEGHTFLVRNHRQASLEISPTFLTAQTLLMDLGQFLLFCHISSHQHDGMEAYVKVDSCPEEPQLRMKNNEEAEDYDDDLT
 DSEMDVVRFDDDNSPSFIQIRSAKKHPKTWVHYIAAEEEDWDYAPLVLAPDDRSYKSQYLNNGPQRIGRKYKKVRFMAYTDETFKTR
 EAIQHESGILPLLYGEVGDTLIIFKNQASRPYNIYPHGITDVRPLYSRRLPKGVKHLKDFPILPGEIFKYKWTVTVEDGPTKSDPRCLTRY
 SSFVNMERDLASGLIGPLLYCYKESVDQRGNQIMSDKRNVLFSVFDENRSWYLTENIQRFLPNPAGVQLEDPEFQASNIMHSINGYVF
 DSLQLSVCLHEVAYWYILSIGAQTDFLSVFFSGYTFKHKMVYEDTLTFPFSGETVFMMSMENPGLWILGCHNSDFRNRGMTALLKVSSC
 DKNTGDYEDSYEDISAYLLSKNNAIEPRFSQNSRHPSTRQKQFNATTIPENDIEKTDPPWFARHTPMPKIQNVSSSDLLMLLRQSPTPH
 GLSLSDLQEAKEYTFSDDPSPGAIDSNNSLSEMTFRPQLHHSQDMVFTPEGLQLRLNEKLGTTAATELKKLDFKVSSTSNLISTIPSD
 NLAAGTDNTSSLGPPSPMPVHYDSQLDITLFGKKSSPLTESGGPLSLSEENNDKLLSGLMNSQESSWGKNVSTESGRLFKGKRAHGP
 ALLTKDNALFKVSIKLTNKTNSNATNRKTHIDGPSLLIENSPSVWQNILESDFEKKVTPLIHDMMLMDKNATALRLNHMSNKTSS
 KNMEMVQKKEGPIPPDAQNPDMSEFFKMLFLPESARWIQRTHGKNSLNSGQGPSKQLVSLGPEKSEVGQNFLEKNKVVGKGEF
 TKDVGLKEMVFPSSRNFLTLNLDNLHENNTHNQEKKEIEKKETLIQENNVLPQIHTVTGTKNFMKNLFLSTRQNVESYDYGAYAP
 VLQDFRSLNDSTNRKKTHTAHFSKKGEEENLEGLGNQTKQIVEKYACTTRISPNTSQQNFVTQRSKRALKQFRLPLEETELEKRIIVDDTS
 TQWSKNMKHLTPSTLTQIDYNEKEGAIQSPSLDCLTRSHSIPQANRSLPIAKVSSFPSIRPIYLTRVLQDNSSHLPAASYRKKDSGVQ
 ESSHFLQGAKKNNLSAILTLEMTGDQREVGLGTSATNSVTYKKVENTVLPKPDLPKTSKGVELLPKVHIYQKDLFPTETSNGSPGHLDL
 VEGSLLQGTEGAIKWNEANRPGKVPFLRVATESSAKTPSKLLDPLAWDNHYGTQIPKEEWKSQEKSPKTAFAKKKDTILSLNACESNHAI
 AAINEGQNKPEIEVTWAKQGRTERLCSQNPVLKRHQREITRTLQSDQEEIDYDDTISVEMKKEDFDIYDEDENQSPRSFQKTRHYFI
 AAVERLWDYGMSSSPHVLNRNAQSGSVQFKKVVFQEFDTGSFTQPLRYGELNEHLGLLGPYIRAEVEDNIMVTFRNQASRPYSFYSSL
 ISYEEDQRQGAEPKRNFKVKNETKTYFWKVQHMAPTKDEFDCKAWAYFSDVDLEKDVHSLGIGLPLLVCHTNTLNPAHGRQVTQVE
 FALFFTIFDETKSWYFTENMERNCRAPCNQMEDPTFKENYRFHAINGYIMDTLPGLVMAQDQIRRWYLLSMGNSNENIHSIHFSGHVF
 TVRKKEEYKMALYNLYPGVFETVEMLPKAGIWRVECLIGEHLHAGMSTLFLVYSNKCQTPLGMASGHIRDFQITASGQYQGWAPKLA
 RLHYSGSINAWSTKEPFSWIKVDLLAPMIIHGIKTQGARQKFSYLIISQFIIMYSLDGKKWQTYRGNSTGTLMVFFGNVDSSGIKHNFN
 PPIIARYIRLHPHTYSIRSTLRMELMGCDLNSCSMPLGMESKAISDAQITASSYFTNMFATWSPSKARLHLQGRSNAWRPQVNNPKEW
 LQVDFQKTMKVTGVTQGVKSLLTSMYVKEFLISSQDGHQWTLFFQNGKVKVFQGNQDSFTPVVNSLDPPLTRYLRIHPQSWVHQ
 IALRMEVLGCEAQDLY

**FIG. 11B: Factor de von Willebrand de longitud completa,
Secuencia de aminoácidos (SEQ ID NO: 44)**

ATRRYYLGAVELSWDYMQSDLGELPVDARFPPRPVPSFNFNTSVVYKTLFVEFTDHLFNIAPRPPWMGLLGPTIQAEVYDVTVITLK
 NMASHPVSLHAVGVSYWKASEGAEYDDQTSQREKEDDKVFPGGSHTYVWQVLKENGPMASDPLCLTYSYLSHVDLVKDLNSGLIGA
 LLVCREGSLAKEKTQTLHKFILLFAVFDDEGKSWHSETKNSLMQDRDAASARAWPKMHTVNGYVNRSLPGLIGCHRKSVYWHVIGMG
 TPEVHSIFLEGHTFLVRNHRQASLEISPIFLTAQTLLMDLGQFLFCHISSHQHDGMEAYVKVDSCPEEPQLRMKNNEEAEDYDDDLT
 DSEMDVVRFDODNSPSFIQIRSVAKKHPKTWVHYIAAEEEDWDYAPLVLPAPDDRSYKSQYLNNGPQRIGRKYKKVRFMAYTDETFKTR
 EAIQHESGILGPLLYGEVGDTLIIIFKNQASRPYNIYPHGITDVRPLYSRRLPKGVKHLKDFPILPGEIFKYKWTVTVEDGPTKSDPRCLTRY
 SSFVNMRDLASGLIGPLLYCYKESVDQQRGNQIMSDKRNVLFSVFDENRSWYLTENIQRFLPNPAGVQLEDPEFQASNIMHSINGYVF
 DSLQLSVCLHEVAYWYILSIGAQTDFLSVFFSGYTFKHKMVYEDTLTLPFSGETVFMSENPGLWILGCHNSDFRNRGMTALLKVSSC
 DKNTGDYEDSYEDISAYLLSKNNAIEPRFSQNSRHPSTRQKQFNATTIPENDIEKTPWFARHTPMPKIQNVSSDLMMLLRQSPTPH
 GLSLDLQEAKEYETFSDDPSGAIDSNNSLSEMTHTFRPQLHHSQDMVFTPEGLQLRLNEKLGTTAATELKKLDFKVSSTSNLISTIPSD
 NLAAGTDNTSSLGPPSMPVHYDSQLDTTLFGKKSSPLTESGGPLSLSEENNSDKLLESGLMNSQESSWGKNVSSTESGRLFKGRKRAHGP
 ALLTKDNALFKVVISLLKTNKTSNNSATNRKTHIDGPSLLIENSPSVWQNILESDETFKKVTPLIHDRMLMDKNATALRLNHMSNKTSS
 KNMEMVQKKEGPIPPDAQNPDMSEFFKMLFLPESARWIQRTHGKNSLNSGQGPSKQLVSLGPEKSVEGQNFLEKNKVVGKGEF
 TKDVGLEKEMVFPSSRNLFNLNHNTHNQEKIIEEIEKKEKLIQENVVLPQIHTVTGTKNFMKNLFLSTRQNVESYDGAYAP
 VLQDFRSLNDSTNRTKKHTAHFSKKGEEENLEGLGNQTKQIVEKYACTTRISPNTSQQNFVTQSKRALKQFRLPLEETELEKRIIVDDTS
 TQWSKNMKHLTPSTLTQIDYNEKEGAIQSPSLDCLTRSHSIPQANRSLPIAKVSSFPSIRPIYLTRVLFDNSSHLPAAASYRKKDSGVQ
 ESSHFLQGAKKNNLSAILTLEMTGDQREVGLSGTSATNSVTYKKVENTVLPKPDLPKTSQKVELLPKVHIYQKDLFPTETSNNGSPGHLDL
 VEGSLLQGTEGAIKWNEANRPKVPFLRVATESSAKTPSKLLDPLAWNHYGTQIPKEEWSQEKSPKTAFFKKDTILSNACESNHAI
 AAINEGQNKPEIEVTWAKQGRTERLCSQNPVLRHQRERITRTLQSDQEEIDYDDTISVEMKKEDFDIYDEDENQSPRSFQKKTRHYFI
 AAVERLWDYGMSSSPHVLNRNRAQSGSVQFKKVVFEFTDGSFTQPLRYGELNEHLGLGPYIRAEVEDNIMVTFRNQASRPYSFYSSL
 ISYEEDQRQGAEPKRFVKNPNETKTYFWKVQHMMAPTKDEFDCAWAYFSDVDLEKDVHSLGIGPLLVCHTNTLNPAGHRQVTVQE
 FALFFTIFDETKSWYFTENMERNCRAPCNQMEDPTFENYRFHAINGYIMDTLPGLVMAQDQIRRWYLLSMGNSNENIHSIHFGHVF
 TVRKKEEYKMALYNLYPGVFETVEMLPKAGIWRVECLIGEHLHAGMSTLFLVYSNKCQTPLGMASGHIRDFQITASGQYGQWAPKLA
 RLHYSGSINAWSTKEPFSWIKVDLLAPMIIHGIKTQGARQKFSSLYISQFIIMYSLDGKKWQTYRGNSTGTLMVFFGNVDSSGIKNIFN
 PPIIARYIRLHPHTYSIRSTLRMELMGCDLNSCSMPLGMESKAISDAQJTASSYFTNMFATWSPSKARLHLQGRSNAWRPQVNNPKEW
 LQVDFQKTMKVTVGVTQQGVKSLTSMYVKEFLISSSQDGHQWTLFFQNGKVVFQGNQDSFTPVVNSLOPPLTRYLRIHPQSWVHQ
 IALRMEVLGCEAQDLY

(X es cualquier aminoácido natural)

FIG. 11C: XTEN AE42-4, secuencia de proteínas (SEQ ID NO: 46)

GAPGSPAGSPTSTEEGTSESATPESGPGSEPATSGSETPASS

FIG. 11D: XTEN AE42-2, secuencia de ADN (SEQ ID NO: 47)

GGCGCGCCAGGTTCTCTGCTGGCTCCCCACCTCAACAGAAGAGGGGACAAGCGAAAGCGCTACGCCTGAGAGTGGCCCTGGCT
CTGAGCCAGCCACCTCCGGCTCTGAAACCCCTGCCTCGAGC

FIG. 11E: XTEN AE144-2A, secuencia de proteínas (SEQ ID NO: 48)

TSTEPSEGSAPGSPAGSPTSTEEGTSTEPSEGSAPGTSTEPSEGSAPGTSESATPESGPGTSTEPSEGSAPGTSESATPESGPGSEPATSGSE
TPGTSTEPSEGSAPGTSTEPSEGSAPGTSESATPESGPGTSESATPESGPG

FIG. 11F: XTEN AE144-2A, secuencia de ADN (SEQ ID NO: 49)

GGCGCGCCAACCAAGTACGGAGCCGTCCGAGGGGAGCGCACCAGGAAGCCCGGCTGGGAGCCCGACTTCTACCGAAGAGGGTACA
TCTACCGAACCAAGTGAAGGTTACGACACAGGCACCTCAACAGAACCCCTGAGGGCTCGGCGCCTGGTACAAGTGAGTCCGCCAC
CCCAGAATCCGGGCTGGGACAAGCACAGAACCTTCGGAAGGGAGTGCCCTGGAACATCCGAATCGGCAACCCAGAATCAGGG
CCAGGATCTGAGCCCGCACTTCGGGCTCCGAGACGCCTGGGACATCCACCGAGCCCTCCGAAGGATCAGCCCCAGGCACCAAGCA
CGGAGCCCTCTGAGGGAAGCGCACCTGGTACCAGCGAAAGCGCAACTCCCGAATCAGGTCCCGGTACGAGCGAGTCGGCGACCCC
GGAGAGCGGGCCAGGTGCCTCGAGC

FIG. 11G: XTEN AE144-3B, secuencia de proteínas (SEQ ID NO: 50)

SPAGSPTSTEEGTSESATPESGPGSEPATSGSETPGTSESATPESGPGTSTEPSEGSAPGTSTEPSEGSAPGTSTEPSEGSAPGTSTEPSEGS
APGTSTEPSEGSAPGTSTEPSEGSAPGSPAGSPTSTEEGTSTEPSEGSAPG

FIG. 11H: XTEN AE144-3B, secuencia de ADN (SEQ ID NO: 51)

GGCGCGCCAAGTCCCGCTGGAAGCCCACTAGCACCGAAGAGGGGACCTCAGAGTCCGCCACCCCGAGTCCGGCCCTGGCTCTG
AGCCTGCCACTAGCGGCTCCGAGACTCTGGCACATCCGAAAGCGCTACACCCGAGAGTGGAACCCGGCACCTTACCGAGCCCAAGT
GAGGGCTCCGCCCTGGAACAAGCACCGAGCCAGCGAAGGCAGCGCCCCAGGGACCTCCACAGAGCCCAAGTGAAGGCAGTGCT
CCTGGCACAGCACCGAACCAAGCGAGGGCTCTGCACCCGGGACCTCCACCGAGCCAAGCGAAGGCTCTGCCCTGGCACTTCCA
CCGAGCCCAAGCAAGGCAGCGCCCTGGGAGCCCCGCTGGCTCTCCACCGAGACTGAGGAGGGCACATCTACCGAACCAAGTGA
AGGCTCTGCACCAAGGTGCCTCGAGC

FIG. 11I: XTEN AE144-4A, secuencia de proteínas (SEQ ID NO: 52)

TSESATPESGPGSEPATSGSETPGTSESATPESGPGSEPATSGSETPGTSESATPESGPGTSTEPSEGSAPGTSESATPESGPGSPAGSPTST
EEGSPAGSPTSTEEGSPAGSPTSTEEGTSESATPESGPGTSTEPSEGSAPG

FIG. 11J: XTEN AE144-4A, secuencia de ADN (SEQ ID NO: 53)

GGCGCGCCAACGTCGAAAGTGCTACCCCTGAGTCAGGCCCTGGTAGTGAGCCTGCCACAAGCGGAAGCGAACTCCGGGGACCT
CAGAGTCTGCCACTCCGAATCGGGGCCAGGCTCTGAACCGGCCACTTCAGGGAGCGAAACACCAGGAACATCGGAGAGCGCTAC
CCCGGAGAGCGGGCCAGGAAGTACTGAGCCTAGCGAGGGAAAGTGACCTGGTACAAGCGAGTCCGCCACCCGAGTCTGG
CCCTGGCTCTCCAGCGGGCTACCCACGAGCACTGAAGAGGGCTCTCCCGCTGGCAGCCCAACGTCGACAGAAGAAGGATCACCA
GCAGGCTCCCCACATCAACAGAGGAGGTACATCAGAATCTGCTACTCCCGAGAGTGACCCGGTACCTCCACTGAGCCCAAGC
AGGGGAGTGACCAAGGTGCCTCGAGC

FIG. 11K: XTEN AE144-5A, secuencia de proteínas (SEQ ID NO: 54)

TSESATPESGPGSEPATSGSETPGTSESATPESGPGSEPATSGSETPGTSESATPESGPGTSTEPSEGSAPGSPAGSPTSTEEGTSESATPESGP
GSEPATSGSETPGTSESATPESGPGSPAGSPTSTEEGSPAGSPTSTEEG

FIG. 11L: XTEN AE144-5A, secuencia de ADN (SEQ ID NO: 55)

GGCGCGCCAACATCAGAGAGCGCCACCCCTGAAAGTGGTCCCGGGAGCGAGCCAGCCACATCTGGGTCGGAAACGCCAGGCACAA
GTGAGTCTGCAACTCCCGAGTCCGGACCTGGCTCCGAGCCTGCCACTAGCGGCTCCGAGACTCCGGGAACTCCGAGAGCGCTACAC
CAGAAAGCGGACCCGGAACAGTACCGAACCTAGCGAGGGCTCTGCTCCGGGAGCCAGCCGGCTCTCTACATCCACGGAGGAG
GGCACTTCCGAATCCGCCACCCCGAGTACGGGCCAGGATCTGAACCCGCTACCTCAGGCAGTGAGACGCCAGGAACGAGCGAGTC
CGCTACACCGGAGAGTGGGCCAGGGAGCCCTGCTGGATCTCTACGTCCACTGAGGAAGGGTCACCAGCGGGCTCGCCACCAGCA
CTGAAGAAGGTGCCTCGAGC

FIG. 11M: XTEN AE144-6B, secuencia de proteínas (SEQ ID NO: 56)

TSTEPSEGSAPGTSESATPESGPGTSESATPESGPGTSESATPESGPGSEPATSGSETPGSEPATSGSETPGSPAGSPTSTEEGTSTEPSEGSAP
GTSTEPSEGSAPGSEPATSGSETPGTSESATPESGPGTSTEPSEGSAPG

FIG. 11N: XTEN AE144-6B, secuencia de ADN (SEQ ID NO: 57)

GGCGCGCCAACATCTACCGAGCCTTCCGAAGGCTCTGCCCTGGGACCTCAGAATCTGCAACCCCTGAAAGCGGCCCTGGAACCTCC
GAAAGTGCCACTCCCGAGAGCGGCCAGGGACAAGCGAGTCAGCAACCCCTGAGTCTGGACCCGGCAGCGAGCCTGCAACCTCTGG
CTCAGAGACTCCCGGCTCAGAACCCGCTACCTCAGGCTCCGAGACACCCGGCTCTCTGCTGGGAGTCCCACTTCCACCGAGGAAGG
AACATCCACTGAGCCTAGTGAGGGCTCTGCCCTGGAACAGCACAGACCAAGTGAGGGCAGTGACACAGGATCCGAGCCAGCAA
CCAGCGGGTCCGAGACTCCCGGACCTCTGAGTCTGCCACCCAGAGAGCGGACCCGGCACTTCAACCGAGCCCTCCGAAGGATCA
GCACAGGTGCCTCGAGC

FIG. 11O: XTEN AG144-1, secuencia de proteínas (SEQ ID NO: 58)

PGSSPSASTGTGPGSSPSASTGTGPGTSGTASSSPGSSTPSGATGSPGSSPSASTGTGPGASPGTSSGSPGTPGSGTASSSPGSSTPSGA
TGSPGTPGSGTASSSPGASPGTSSGSPGASPGTSSGSPGTPGSGTASS

FIG. 11P: XTEN AG144-1, secuencia de ADN (SEQ ID NO: 59)

GGCGCGCCACCCGGGTCTGTCCTCGGCGTCCACCGGAACAGGGCCAGGGTCATCCCGTCAGCGTCGACTGGGACGGGACCCGG
GACACCCGGTTCGGGGACTGCATCCTCCTCGCTGGTTCGTCCACCCGTCAGGAGCCACGGGTTCGCCGGGAAGCAGCCCAAGCGC
ATCCACTGGTACAGGGCCTGGGGCTTACCGGGTACTTCATCCACGGGGTCACCGGGAACGCCGGATCGGGGACGGCTTCTCATC
ACCAGGATCGTCAACACCTCGGGCGCAACGGGCAGCCCCGGAACCCCTGGTTCGGGTACGGCGTCGTCGAGCCCCGGTGCGAGCC
CGGGAACAAGCTCGACAGGATCGCCTGGGGCGTCACCGGCACGTCGAGCACAGGACGCCCCGGAACCCCTGGATCGGGAACCGC
GTCGTCAAGCGCCTCGAGC

FIG. 11Q: XTEN AG144-A, secuencia de proteínas (SEQ ID NO: 60)

GASPGTSSGSPGSSPSASTGTGPGSSPSASTGTGPGTSGTASSSPGSSTPSGATGSPGSSPSASTGTGPGASPGTSSGSPGTPGSGTAS
SSPGSSTPSGATGSPGTPGSGTASSSPGASPGTSSGSPGASPGTSSGSP

FIG. 11R: XTEN AG144-A, secuencia de ADN (SEQ ID NO: 61)

GGCGCGCCAGGTGCCTCGCCGGGAACATCATCACTGGTTCACCCGGGTATCCCCCTCGGCCTCAACCGGGACGGGTCCCGGCTCA
TCCCCAGCGCCAGCACTGGAACAGGTCTGGCACTCCTGGTTCGGGTACGGCATCGTCATCCCGGGAAGCTCAACACCGTCCGGA
GCGACAGGATCACCTGGCTCGTCACTTCGGCGTCACTGGAACGGGGCCAGGGGCTACCCGGAACGTCCTCGACTGGGTGCGCT
GGTACGCCGGGATCAGGAACGGCCTATCCTCGCTGGTCTCAACGCCCTCGGGTGGGACTGTTCCGCCGGGAACCTCTGGTCTG
GGGACGGCCTCGTCTGCTGGGGCATACCGGGGACGAGCTCACGGGGTCCCTGGAGCGTCACCGGGGACCTCTCGACAGG
TAGCCCGGCTCGAGC

FIG. 11S: XTEN AG144-B, secuencia de proteínas (SEQ ID NO: 62)

GTPGSGTASSSPGSSTPSGATGSPGASPGTSSTGSPGTPGSGTASSSPGSSTPSGATGSPGSSPSASTGTGPGSSPSASTGTGPGSSTPSGAT
GSPGSSTPSGATGSPGASPGTSSTGSPGASPGTSSTGSPGASPGTSSTGSP

FIG. 11T: XTEN AG144-B, secuencia de ADN (SEQ ID NO: 63)

GGCGCGCCAGGTACACCGGGCAGCGGCACGGCTTCGTCTGTCACCCGGCTCGTCCACACCGTCGGGAGCTACGGGAAGCCAGGAGC
GTCACCGGGAACGTCTCAACGGGGTACCGGGTACGCCAGGTAGCGGCACGGCCAGCAGCTCGCCAGGTTTCATGACCCCGTCGG
GAGCGACTGGGTGCGCCGGATCAAGCCCGTCAGCTTCACTGGAACAGGACCCGGGTCGTGCGCGTCAGCCTCAACGGGGACAGGA
CCTGGTTCATCGACCGCGTCAGGGGCGACAGGCTCGCCGGATCGTCAACACCCCTCGGGGGCAACGGGGAGCCCTGGTGGTGGCC
TGGAACTCATCCACCGGAAGCCCGGGGCTCGCCGGGTACGAGCTCCACGGGATCGCCCGGAGCGTCCCCGGAACCTCAAGCA
CAGGGAGCCCTGCCTCGAGC

FIG. 11U: XTEN AG144-C, secuencia de proteínas (SEQ ID NO: 64)

GTPGSGTASSSPGASPGTSSTGSPGASPGTSSTGSPGSSPSASTGTGPGTPGSGTASSSPGASPGTSSTGSPGASPGTSST
GSPGASPGTSSTGSPGSSTPSGATGSPGSSTPSGATGSPGASPGTSSTGSP

FIG. 11V: XTEN AG144-C, secuencia de ADN (SEQ ID NO: 65)

GGCGCGCCAGGTACACCCGGATCGGGTACAGCGTCATCGAGCCCCGGTGGTTCACCTGCTCGAGCAGCGGGTCCAGGGGGC
GTCCCTGGGACGTCTCAACAGGCTCGCCGGTGCCTACCCGGACGTCGTCCACGGGTTACCTGGTAGCTCCCTTCCGCGTCC
ACTGGCACCGGGCTGGAACCTCCGGGGAGCGGCACAGCGAGCTCGTCCCGGGAGCATCGCCTGGGACATCGAGCACCGGGTCCG
CAGGAGCATCGCCCGGAACATCCAGCACAGGAAGCCCCGGCGCTCGCCCGGGACATCAAGCACAGGTTCCCCGGGATCGAGCACG
CCGTCCGGAGCCACTGGATCACCAGGGAGCTCGACACCTTCCGGCGCAACGGGATCGCCCGGAGCCAGCCCGGGTACGTCAAGCAC
TGGTCCCTGCCTCGAGC

FIG. 11W: XTEN AG144-F, secuencia de proteínas (SEQ ID NO: 66)

GSSPSASTGTGPGSSPSASTGTGPGASPGTSSTGSPGASPGTSSTGSPGSSTPSGATGSPGSSPSASTGTGPGASPGTSSTGSPGSSPSASTG
TGPGTPGSGTASSSPGSSTPSGATGSPGSSTPSGATGSPGASPGTSSTGSP

FIG. 11X: XTEN AG144-F, secuencia de ADN (SEQ ID NO: 67)

GGCGCGCCAGGCTCCAGCCCTCCGCGAGCACGGGAACCGGACCAGGTTCTGTACCCCTCAGCATCAACGGGGACGGGACCGGGGG
CGTACCAGGAACGTCTCCACCGGCTCGCCGGGTGCATCACCGGAACGTATCGACCGGATCGCCAGGGAGCTCGACGCCATCAG
GCGCAACAGGATCACCTGGCTCAAGCCCTAGCGCGTCAACCGGCACGGGTCCGGGTGCCTCCCTGGCACGTCCAGCACCGGATCAC
CCGGATCGAGCCCATCCGCTCAACCGGAACCGGACCGGTACACCAGGGTCGGGAACAGCCTCCTCGTACCAGGCTCTCAACCC
CCTCGGAGCCACGGGTTCCGCCGTTCTGTCAACGCTTCCGGAGCAACTGGTAGCCCCGGAGCATCGCCAGGAACCTCGAGCACG
GGTCCGCCCGCTCGAGC

FIG. 11Y: Promotor ET, secuencia de ADN (SEQ ID NO: 69)

CTCGAGGTCAATTCACGCGAGTTAATAATTACCAGCGCGGGCCAAATAATAATCCGCGAGGGGCAGGTGACGTTTGCCAGCGCGC
GCTGGTAATTATTAACCTCGCGAATATTGATTGAGGGCCGCGATTGCCGCAATCGCGAGGGGCAGGTGACCTTTGCCAGCGCGCGT
TCGCCCCGCCCGGACGGTATCGATAAGCTTAGGAGCTTGGCTGCGAGGTGAGGGCACTGGGAGGATGTTGAGTAAGATGGAAAA
CTACTGATGACCTTGCAGAGACAGAGTATTAGGACATGTTGAACAGGGGGCCGGGCGATCAGCAGGTAGCTCTAGAGGATCCCCGT
CTGTCTGCACATTTCTGAGAGCGAGTGTCCGATACTCTAATCTCCCTAGGCAAGGTTTCATATTTGTGAGGTTACTTATCTCCTTTTG
TTGACTAAGTCAATAATCAGAAATCAGCAGGTTTGGAGTCAGCTTGGCAGGGATCAGCAGCCTGGGTTGGAAGGAGGGGGTATAAAA
GCCCTTACCAGGAGAAGCCGTACACAGATCCACAAGCTCCTGCCACCATGG

FIG. 11Z: coFVIII-1- Secuencia de ADN (SEQ ID NO: 68)

ATGCAGATTGAGCTGTCTACTTGTCTTTTCTGTGCTGCTGAGGTTTTGCTTTCCGCTACACGAAGGTATTATCTGGGGGCTGTGGA
 ACTGCTTTGGGATTACATGCAGAGTGACCTGGGAGAGCTGCCAGTGGACGCAAGGTTTCCCCCTAGAGTCCCTAAGTCATTCCCCTTC
 AACACTAGCGTGGTCTACAAGAAAACACTGTTCTGTGGAGTTTACTGATCACCTGTTCAACATCGCAAAGCCTAGGCCACCCTGGATGG
 GACTGCTGGGGCCACAATCCAGGCCGAGGTGTACGACACCGTGGTCATTACACTTAAGAACATGGCCTCACACCCCGTGAGCCTGC
 ATGCTGTGGGGCGTCAGTACTGGAAGGCTTCCGAAGGAGCAGAGTATGACGATCAGACTTCCCAGAGAGAAAAAGAGGACGATAAG
 GTGTTTCTGGCGGATCTCATACCTACGTGTGGCAGGTCTGAAAGAGAATGGCCCTATGGCCTCCGACCCTCTGTGCCTGACCTACT
 CTTATCTGAGTCACGTGGACCTGGTCAAGGATCTGAACAGCGGCCTGATCGGAGCCCTGCTGGTGTGCAGGGAAGGAAGCCTGGCTA
 AGGAGAAAACCCAGACACTGCATAAGTTCACTTCTGCTGTTCCGCGTGTGGACGAAGGGAATCATGGCACAGCGAGACAAAAGATA
 GTCTGATGCAGGACAGGGATGCCGCTTCAGCCAGAGCTTGGCCAAAATGCACACTGTGAACGGCTACGTCAATCGCTCACTGCCTG
 GGCTGATCGGCTGCCACCGAAGAGCGTGTATTGGCATGTCATCGGATGGGCACCAACCTGAAGTGCACTCCATTTTCTGGAGG
 GACATACCTTTCTGGTCCGCAACCCAGAGGCTTCCCTGGAGATCTCTCAATTACCTTCTGACAGCACAGACTCTGTGATGGAC
 CTGGGGCAGTTCTGCTGTTTTGCCACATCAGCTCCACCAGCATGATGGCATGGAGGCTTACGTGAAAGTGGAAGTCTGTCCCGAGG
 AACCTCAGTGCAGGATGAAGAACAAATGAGGAAGCAGAAGACTATGACGATGACCTGACCGACTCCGAGATGGATGTGGTCCGATT
 GATGACGATAACAGCCCCTCTTTATCCAGATTAGATCTGTGGCAAGAAACACCCTAAGACATGGGTCCATTACATCGCAGCCGAGG
 AAGAGGACTGGGATTATGCACCACTGGTCTGGCACCAGACGATCGCTCTACAATCTCAGTATCTGAACATGGGCCACAGAGGA
 TTGGCAGAAAGTACAAGAAAGTGGGTTTATGGCATATACCGATGAGACCTTCAAGACTCGCGAAGCCATCCAGCAGGAGAGCGGCA
 TCCTGGGACCACTGCTGTACGGAGAAGTGGGAGACACCTGCTGATCATTTTCAAGAACCAGGCCAGCCGGCCTTACAATATCTATCC
 ACATGGGATTACAGATGTGCGCCCTCTGTACAGCAGGAGACTGCCAAAGGGCGTCAAACACCTGAAGGACTTCCCAATCTGCCCCG
 AGAAATCTTCAAGTACAAGTGGACTGTCACCGTCGAGGATGGCCCCACTAAGAGCGACCTCGGTGCCTGACCCGCTACTATTCTAGT
 TTCGTGAATATGGAAGAGATCTGGCAAGCGGACTGATCGGACCACTGCTGATTGTTACAAAGAGAGCGTGGATCAGAGAGGCAAC
 CAGATCATGTCCGACAAGCGGAATGTGATTCTGTTTCAAGTGTCTTTGACGAAAACAGGTGATGGTACCTGACCGAGAACATCCAGAGAT
 TCCTGCCTAATCCAGCTGGGGTGCAGCTGGAAGATCCTGAGTTTCAAGCATCTAACATCATGCATAGTATTAATGGCTACGTGTTTCA
 CAGTTTGCAGCTGAGCGTGTGCTGCACGAGGTGCTTACTGGTATATCTGAGCATTGGGGCACAGACAGATTTCCTGAGCGTGTTC
 TTTCCGGCTACACTTTTAAAGCATAAAATGGTCTATGAGGACACACTGACTGTTCCCTTCAGCGGCGAAACCGTGTATGAGCAT
 GGAGAATCCCGGACTGTGGATTCTGGGGTGCCACAACAGCGATTTTCAAGAAATCGCGGAATGACTGCCCTGCTGAAAGTGTCAAGCTG
 TGACAAGAACACCGGGGACTACTATGAAGATTATACGAGGACATCAGCGCATATCTGCTGTCCAAAAACAATGCCATTGAACCCCG
 GTCTTTTAGTCAGAATCTCCAGTGTGGAAGAGGCACAGAGGGAGATCACCCGCACTACCCTGCAGAGTGATCAGGAAGAGATCGA
 CTACGACGATAACAATTTCTGTGGAAATGAAGAAAGAGGACTTCGATATCTATGACGAAGATGAGAACCAGAGTCTCGATCATTTCCAG
 AAGAAAACCGGCTTACTTTATTGCCGAGTGGAGCGGCTGTGGGATTATGGCATGTCCTCTAGTCTCACGTGCTGCGAAATAGG
 GCCCAGTCAGGAAGCGTCCACAGTTCAAGAAAGTGGTCTTCCAGGAGTTTACAGACGGGTCTTTACTCAGCCACTGTACAGGGGC
 GAACTGAACGAGCACCTGGGACTGCTGGGGCCCTATATCAGAGCAGAAGTGGAGGATAACATTATGGTCACTTCAGAAATCAGGCC
 TCTCGGCCTTACAGTTTTTATTCAAGCTGATCTCTTACGAAGAGGACCAGCGACAGGGAGCTGAACCACGAAAAAACTTCTGTAAGC
 CTAATGAGACCAAAACATACTTTTGAAGGTGACGACCATATGGCCCCAACAAAAGACGAGTTGCGATTGCAAGGCATGGGCCTATT
 TTCTGACGTGGATCTGGAGAAGGACGTGCACAGTGGCCTGATTGGCCCACTGCTGGTGTGCCATACTAACACCCTGAATCCAGCCAC
 GGCCGGCAGGTCACTGTCCAGGAGTTCGCTCTGTTCTTTACCATCTTTGATGAGACAAAGAGCTGGTACTTCACCGAAAACATGGAGC
 GAAATTGCAGGGCTCCATGTAACATTAGATGGAAGACCCACATTCAAGGAGAACTACCGCTTTCATGCTATCAATGGATACATCAT
 GGATACTCTGCCCCGGCTGGTATGGCACAGGACCAGAGAATCCGGTGGTATCTGCTGAGCATGGGCAGCAACGAGAATATCCACTC
 AATTCAATTCAGCGGGCAGCTGTTTACTGTGAGGAAGAAAGAGTACAAGATGGCCCTGTACAACCTGTATCCCGCGTGTTCGAA
 ACCGTGAGATGCTGCCTAGCAAGGCCGGAATCTGGAGAGTGGAATGCCTGATTGGAGAGCACCTGCATGCTGGGATGTCTACCCTG
 TTTCTGGTGTACAGTAATAAGTGTGACACCCCTGGGAATGGCATCCGGGCATATCAGGGATTTCAGATTACCGCATCTGGACAGT
 ACGGACAGTGGGCACCTAAGCTGGCTAGACTGCACTATTCCGGATCTATCAACGCTTGGTCCACAAAAGAGCCTTTCTCTTGATTAA
 GGTGGACCTGCTGCCCCAATGATCATTATGGCATCAAACTCAGGGAGCTCGGCAGAAGTCTCCTCTCTGTACATCTCACAGTTTA
 TCATCATGTACAGCCTGGATGGGAAGAAATGGCAGACATACCGCGCAATAGCACAGGAACCTGATGGTGTCTTTGGCAACGTGG
 ACAGCAGCGGAATCAAGCACAACTTTCAATCCCCCTATCATTGCTAGATACATCCGGCTGCACCAACCCATTATTCTATTGAAAGT
 AACTGAGGATGGAAGTGTGGATGCGATCTGAACAGTTGTTCAATGCCCTGGGATGGAGTCAAAGGCAATCTCTGACGCCAG
 ATTACCGCCAGTCTTACTTCAATATGTTTGTACCTGGAGCCCTTCAAAGCAAGACTGCACCTGCAAGGCCGACGAACCGCATG
 GCGACCACAGGTGAACAATCCAAGGAGTGGTTGACGGTCGATTTTCAAGAACTATGAAGGTGACCGGGGTCAAACTCAGGGCG
 TGAAAAGTCTGCTGACCTCAATGTACGTCAAGGAGTTCCTGATCTCTAGTTTCAAGGACGGACATCAGTGGACACTGTTCTTTAGAA
 CGGGAAGGTGAAGTCTTCCAGGGCAATCAGGATTCCTTTACACCTGTGGTCAACAGTCTAGACCCTCCACTGCTGACCAGATACCTG
 AGAATCCACCTCAGTCTGGGTGCACAGATTGCCCTGAGAATGGAAGTGTGGGATGCGAGGCCAGGATCTGTACTGA

FIG. 12A: Inyección IV de ratones Hema con LV-FVIII

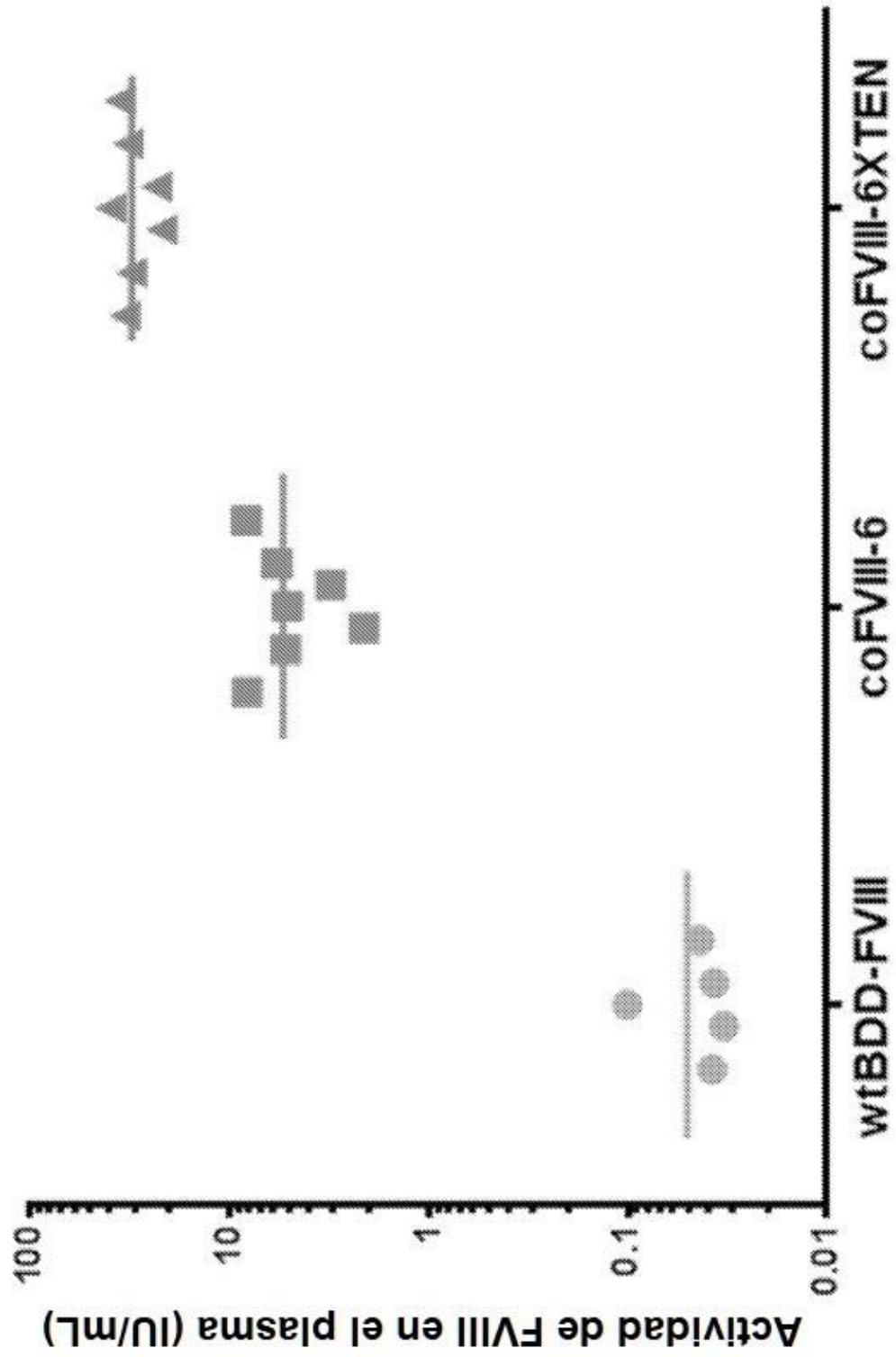


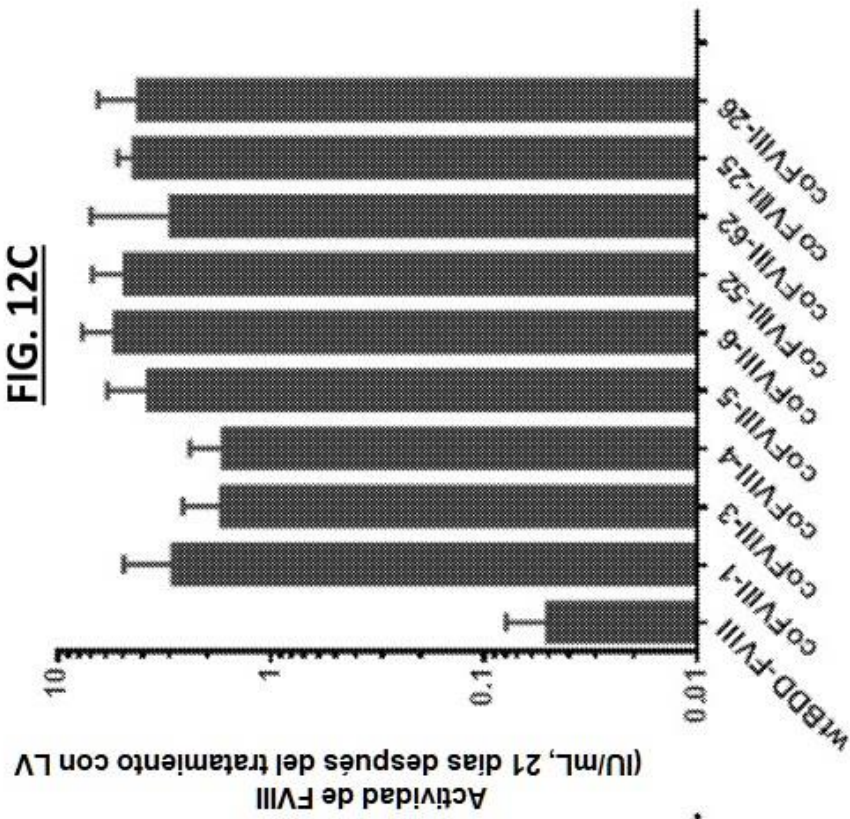
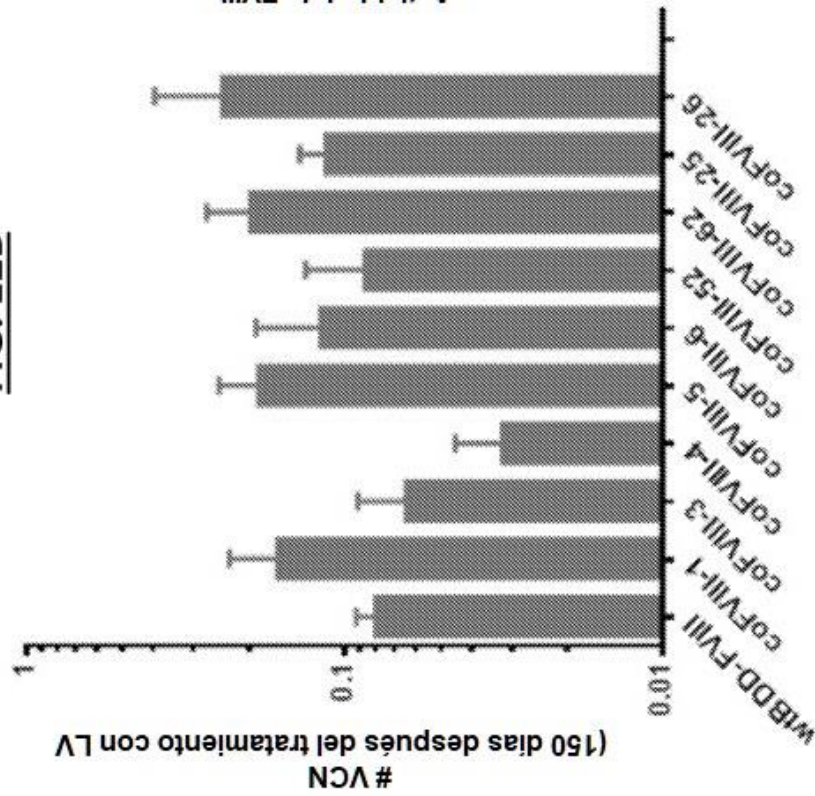
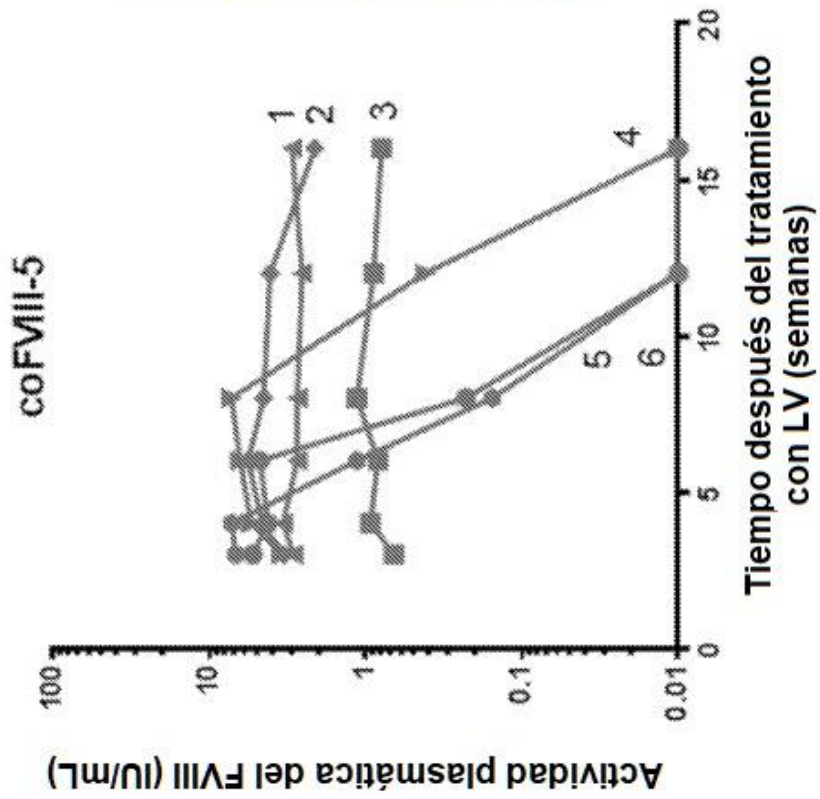
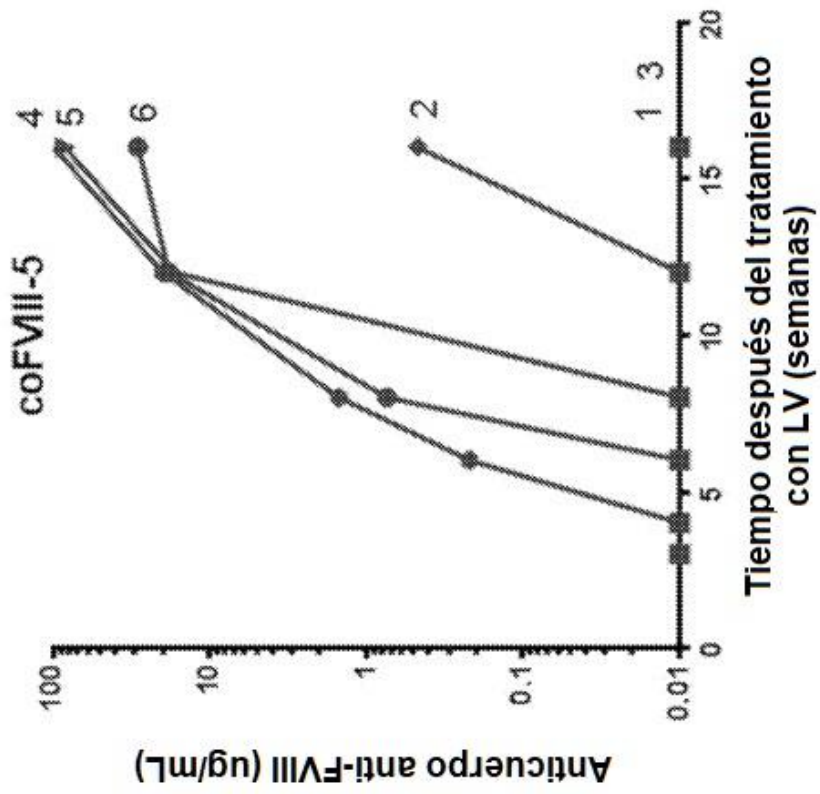
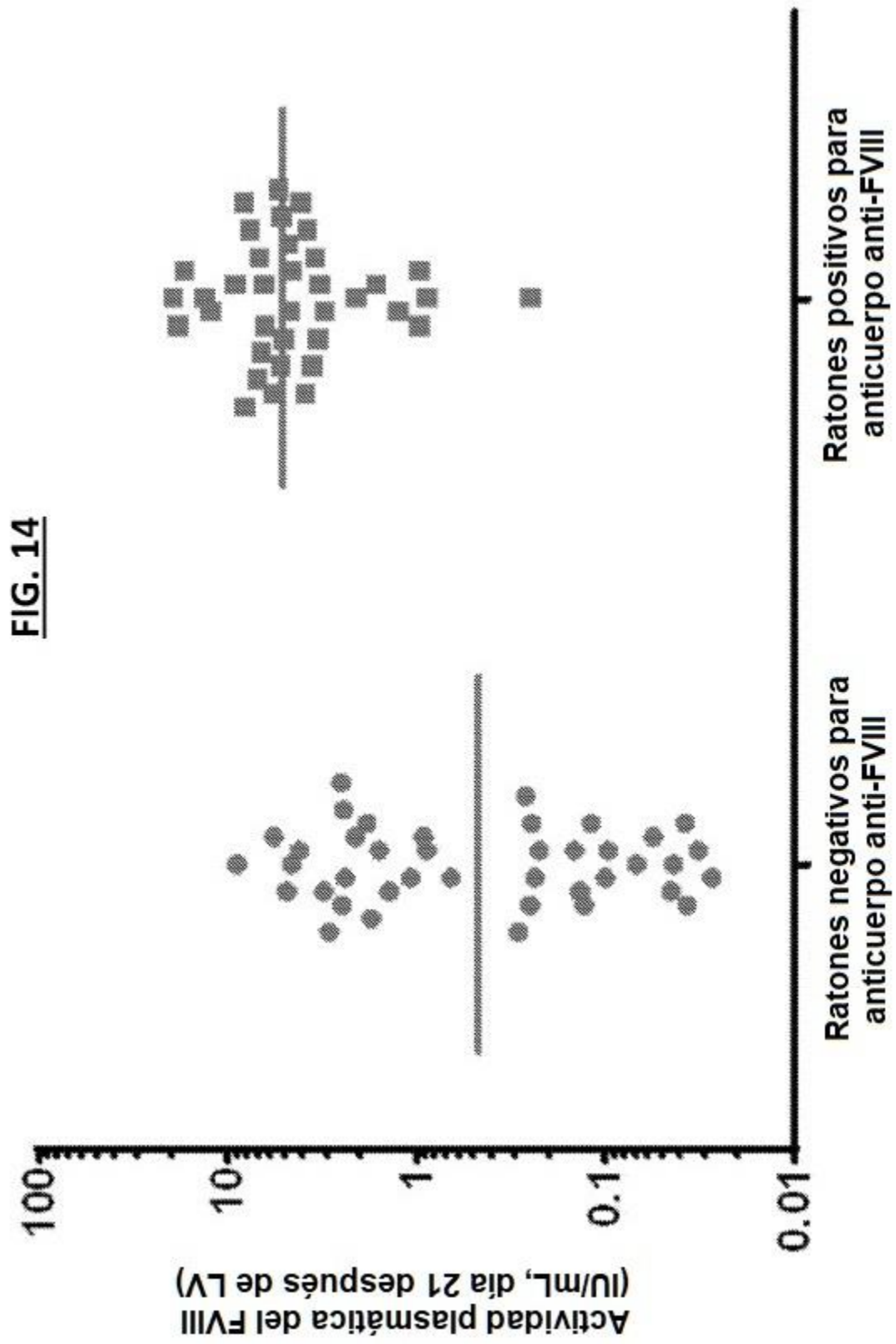
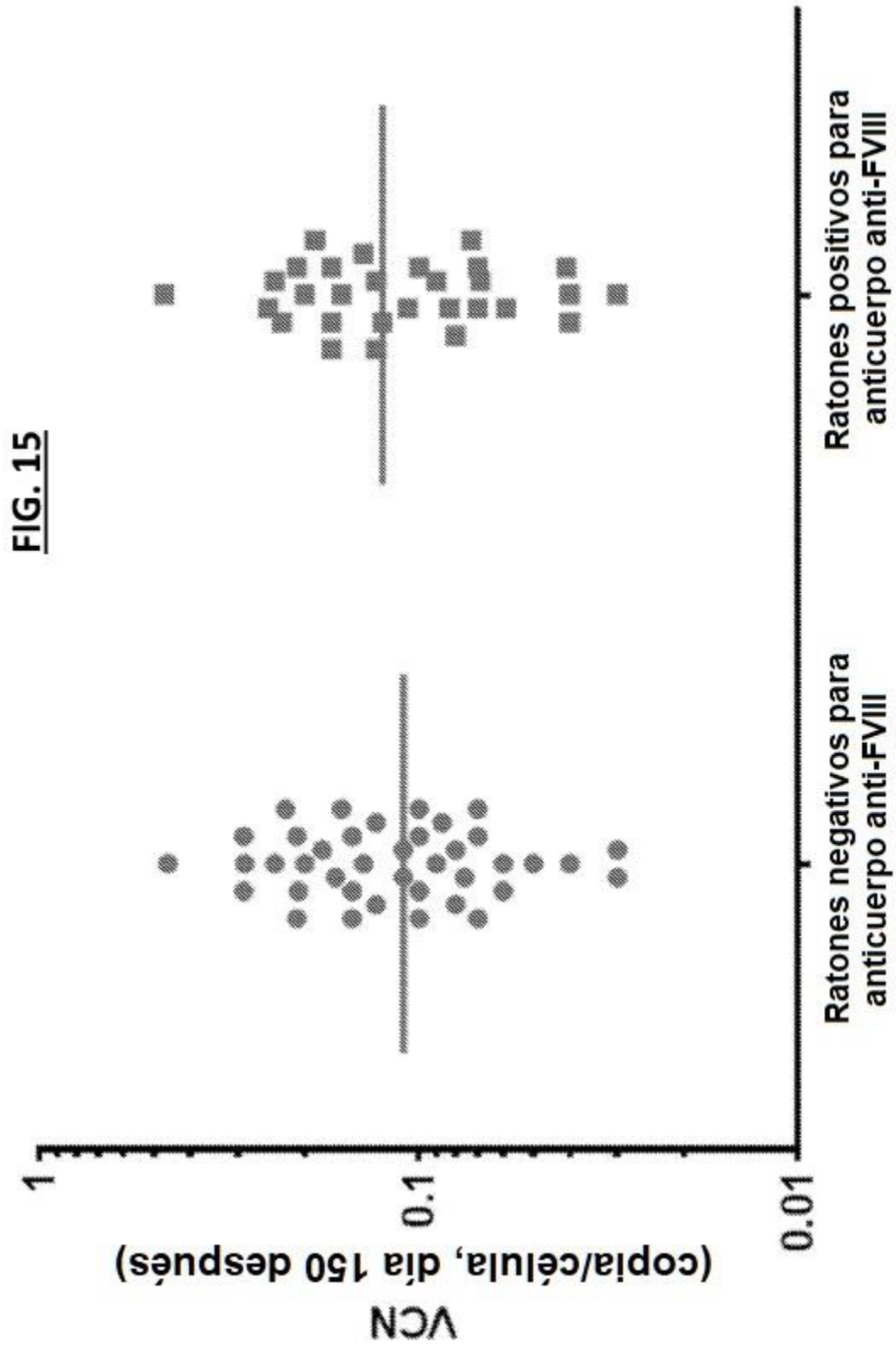
FIG. 12C**FIG. 12B**

FIG. 13A**FIG. 13B**





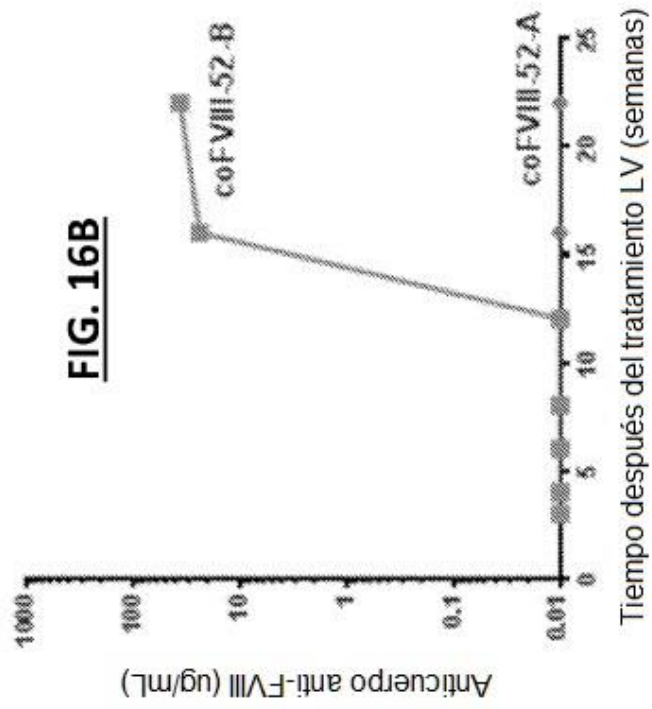
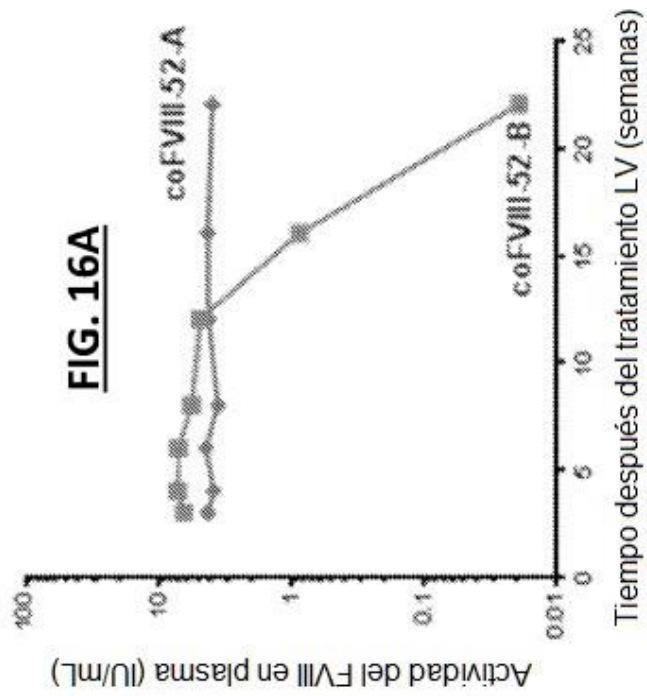
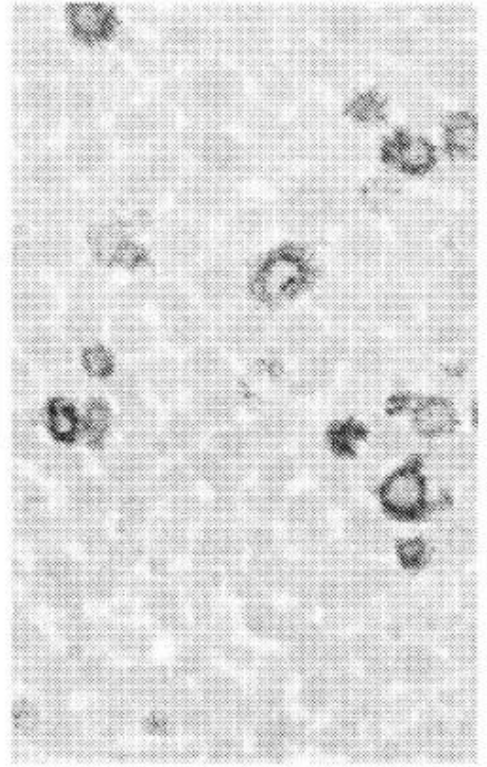
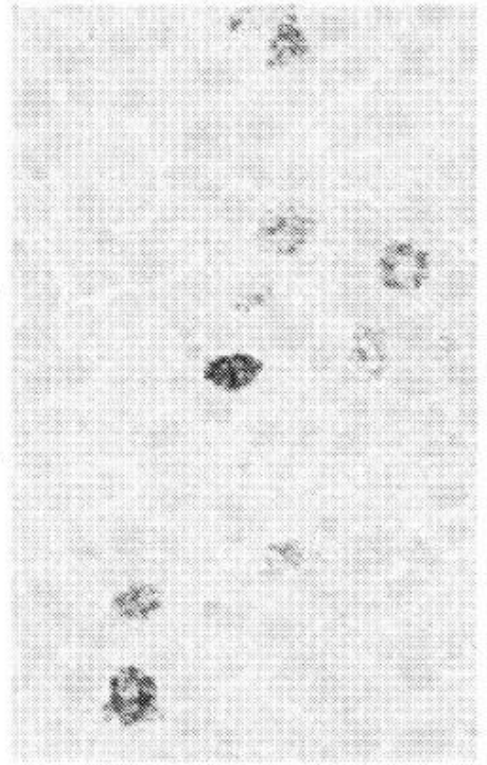
**FIG. 16D****FIG. 16C**

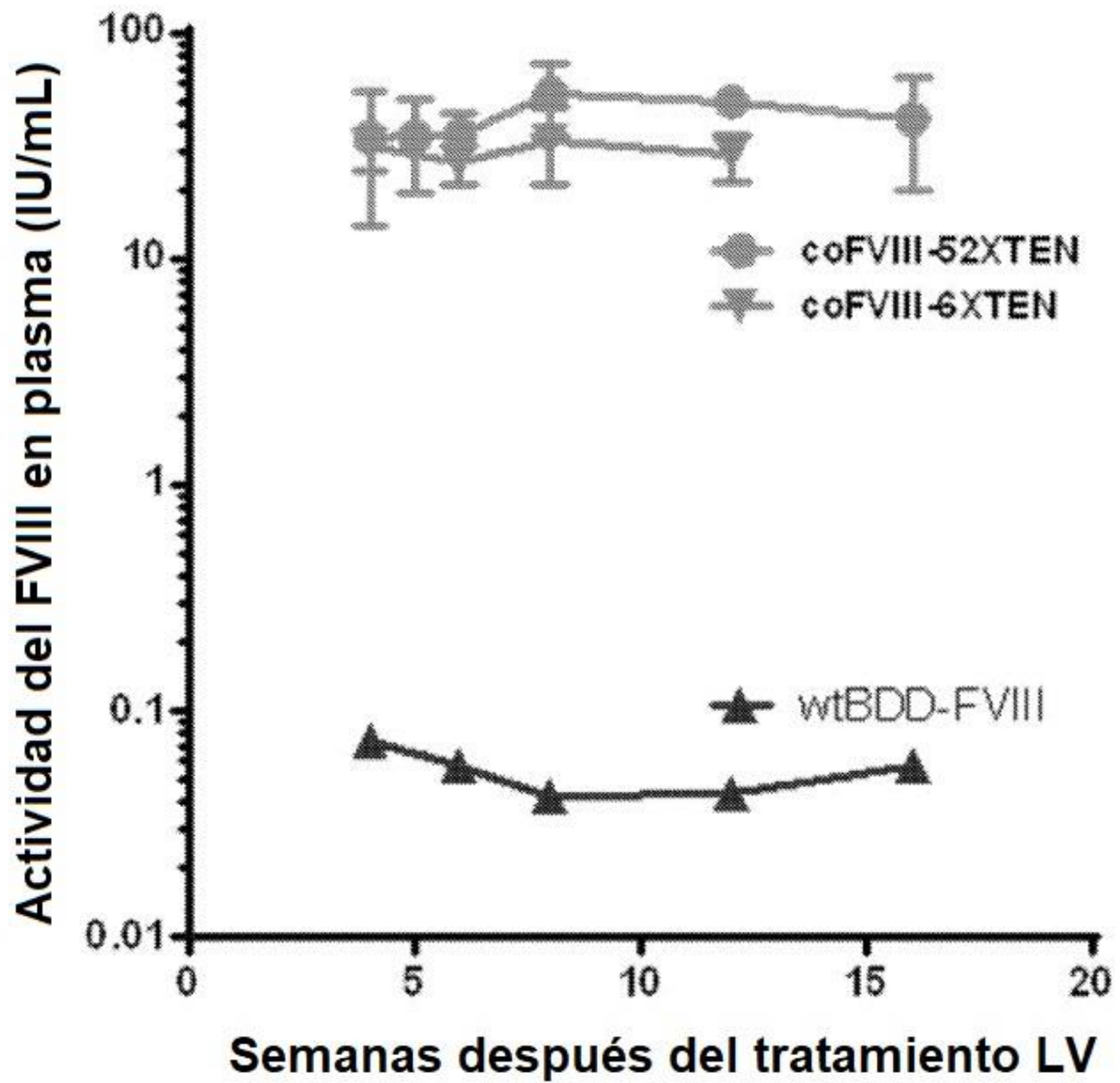
FIG. 17

FIG. 18

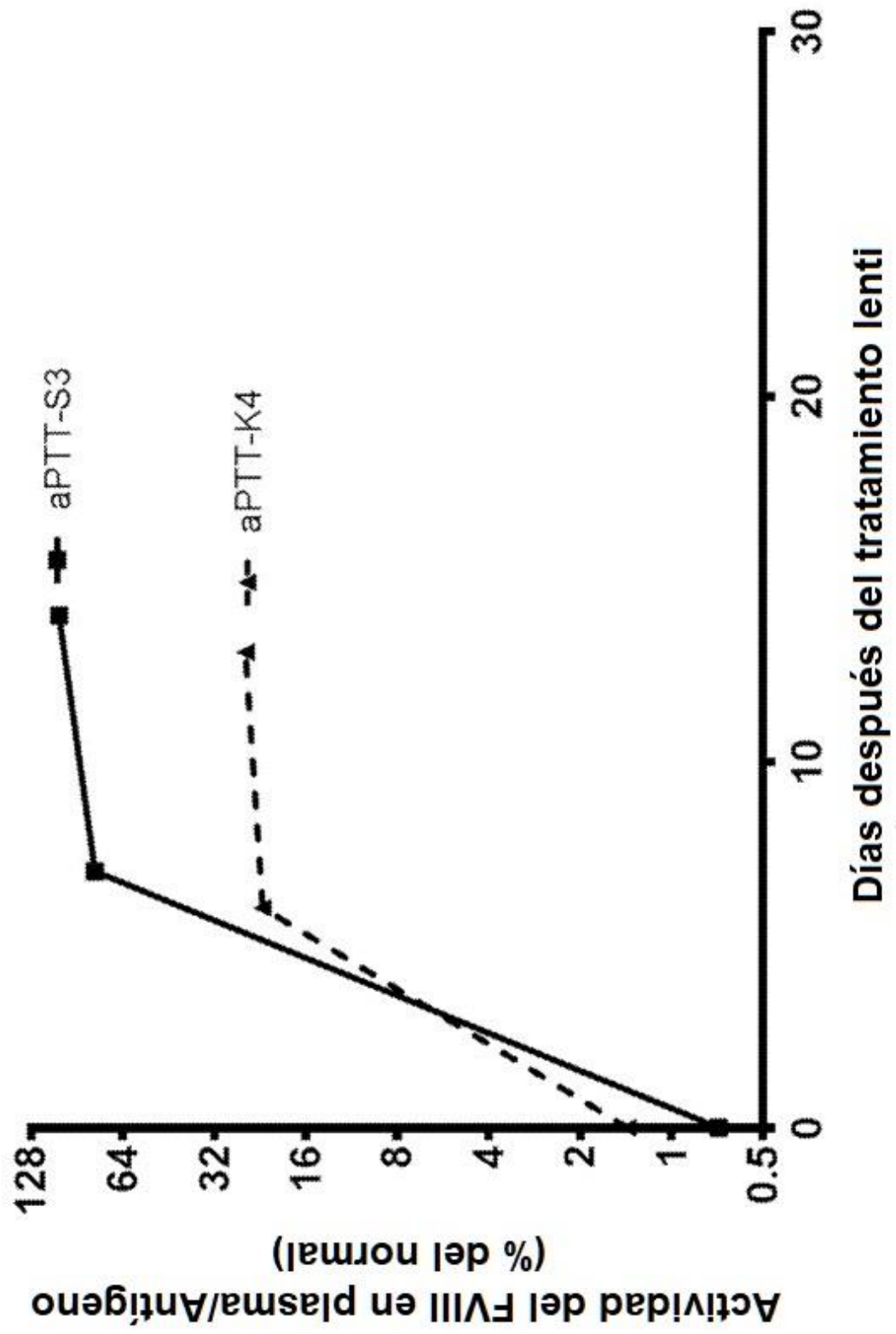


FIG. 19A

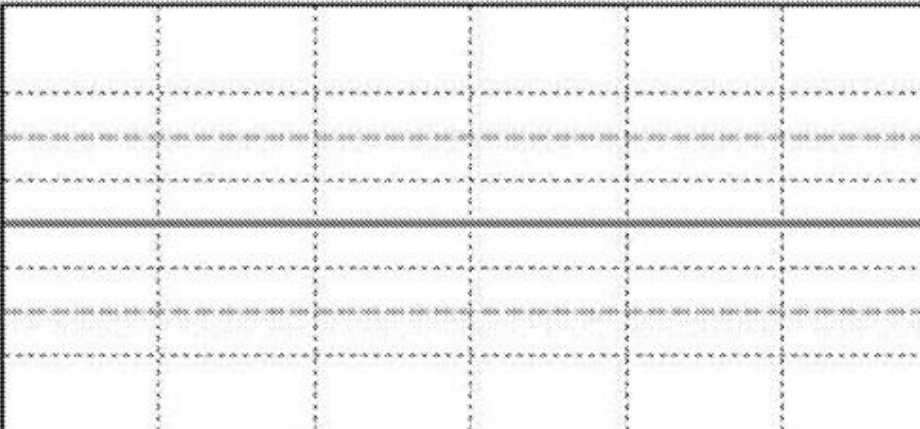
		
NATEM	2015-09-21 11:36	2: Kirby pre Sept 2
CT: *7194s	CFT: - s	α : - °
A10: - mm	A20: - mm	MCF: - mm

FIG. 19B

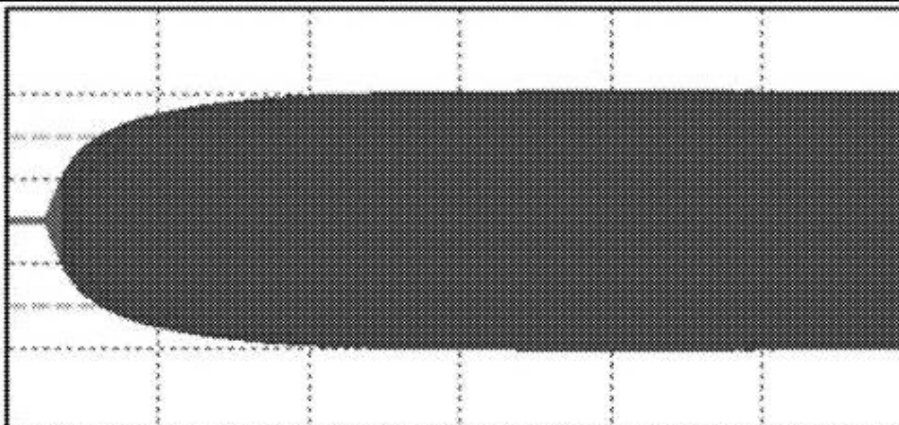
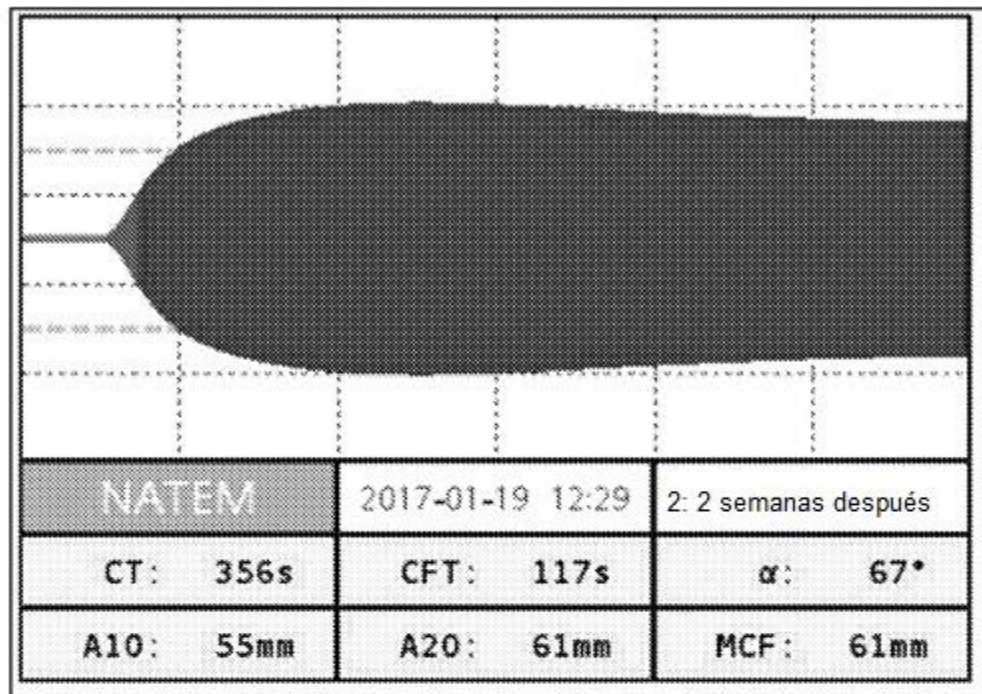
		
NATEM	2017-01-18 11:00	2: 2 sem. después de la muestra
CT: 167s	CFT: 65s	α : 77°
A10: 53mm	A20: 59mm	MCF: 61mm

FIG. 19C**FIG. 19D**

Parámetro	Descripción de parámetros	Intervalo normal
CT (seg)	tiempo de coagulación	120-480
CFT (seg)	tiempo de formación de coágulos	60-240
$\alpha(^{\circ})$	ángulo alfa	27-60
A5 (mm)	amplitud 5 min. después del CT	na
A20 (mm)	amplitud 20 min. después del CT	na
MCF (mm)	firmeza máxima del coágulo	40-60