

Fig. 1

Wild-type SEB, amino acid sequence

SEQ ID NO:1

ESQPDPKPDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
YKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNK
KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWDMMPPAPGDKFDQSKYLMMYNDNKMVDSKDV
KIEVYLTTKKK

Wild-type SEB, nucleic acid sequence

SEQ ID NO:2

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGGAAAATATGAAAG
TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAA
TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTCTAAAAAACGAATGATA
TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGA
TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAG
AAAAAGGTGACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
ACAACTCGCCTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Mutant SEB del22-24, amino acid sequence

SEQ ID NO:3

ESQPDPKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWDMMPPAPGDKFDQSKYLMMYNDNKMVDSKDVKIE
VYLTTKKK

Mutant SEB del 22-24, nucleic acid sequence

SEQ ID NO:4

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTACGACAAAGAAAAAG

Mutant SEB del 22-24, L45R (bold and underlined), amino acid sequence

SEQ ID NO:5

ESQPDPKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQ**RY**FDLIYSIKDTKLGNYDNVRVEFKNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSEFWYDMMPPAPGDKFDQSKYLMMYNDNKMVDSKDVKIE
VYLTTKKK

Fig. 1 (continued)

Mutant SEB del 22-24, L45R, nucleic acid sequence

SEQ ID NO:6

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACCTGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTACGACAAAGAAAAAG

Mutant SEB del 22-24, Q43P (bold and underlined), amino acid sequence

SEQ ID NO:7

ESQDPKPKDELHKSSKFTGLMKVLYDDNHVSAINVKSIDPFLYFDLIYSIKDTKLGNYDNVRVEFNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFQSKYLMYNDNKMVDSKDVKIE
VYLTTKKK

Mutant SEB del 22-24, Q43P, nucleic acid sequence

SEQ ID NO:8

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCCGTTTCTATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACCTGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTACGACAAAGAAAAAG

Mutant SEB del22-24, F44P (bold and underlined), amino acid sequence

SEQ ID NO:9

ESQDPKPKDELHKSSKFTGLMKVLYDDNHVSAINVKSIDPFLYFDLIYSIKDTKLGNYDNVRVEFNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFQSKYLMYNDNKMVDSKDVKIE
VYLTTKKK

Mutant SEB del22-24, F44P, nucleic acid sequence

SEQ ID NO:10

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAACCGCTATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACCTGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTACGACAAAGAAAAAG

Mutant SEB del22-24, F44S (bold and underlined), amino acid sequence

SEQ ID NO:11

ESQDPKPKDELHKSSKFTGLMKVLYDDNHVSAINVKSIDSLYFDLIYSIKDTKLGNYDNVRVEFNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFQSKYLMYNDNKMVDSKDVKIE
VYLTTKKK

Fig. 1 (continued)

Mutant SEB del22-24, F44S, nucleic acid sequence

SEQ ID NO:12

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
 ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAAAGCCTATACTTTGACTTAATATATTCTATTAA
 GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
 AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
 ATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
 AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
 ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
 CTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
 TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
 GTTTATCTTACGACAAAGAAAAAG

Construct 3: Mutant Tandem SEB del22-24, L45R (bold and underlined), amino acid sequence, comprising linker "KL" (underlined)

SEQ ID NO:13

ESQPDPKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFKNKDLADKYKD
 KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
 TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSEFWYDMMPPAPGDKFDQSKYLMYNDNKMVDSKDVKIE
 VYLTTKKKKLESQPDPKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFK
 NKDLADKYKDYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLS
 FDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSEFWYDMMPPAPGDKFDQSKYLMYNDNKM
 VDSKDVKIEVYLTTKKK

Construct 3: Mutant Tandem SEB del22-24, L45R, nucleic acid sequence

SEQ ID NO:14

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
 ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATATTCTATTAA
 GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
 AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
 ATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
 AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
 ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
 CTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
 TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
 GTTTATCTTACGACAAAGAAAAAGAAGCTTGAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTA
 AATTCAGTGGTTTGATGAAAGTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATT
 TAGATACTTTGACTTAATATATTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAA
 AACAAAGATTTAGCTGATAAATACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATT
 TTCTAAAAAACGAATGATATTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGA
 GCATAATGGAAACCAATTAGATAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCT
 TTTGACGTACAACTAATAAGAAAAAGGTGACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAA
 ATAAAAACTCTATGAATTTAACAACGCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTT
 TTGGTATGACATGATGCCTGCACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAA
 ATGGTTGATTCTAAAGATGTGAAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Mutant SEB L45R (bold and underlined), amino acid sequence

SEQ ID NO:15

ESQPDPKPDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
 YKDYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNK
 KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSEFWYDMMPPAPGDKFDQSKYLMYNDNKMVDSKDV
 KIEVYLTTKKK

Fig. 1 (continued)

Mutant SEB L45R, nucleic acid sequence

SEQ ID NO:16

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGGAAAATATGAAAG
TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATA
TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATA
TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGA
TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAG
AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTTCGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

SEB naturally-occurring variant

SEQ ID NO:17

ESQPDPKPDELHKA**SK**FTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYNVRVEFK
NKDLADKYKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFE
DGKNLLSFDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPPAGDK
FDQSKYLMYNDNKMVDSKDVKIEVYLTTKK

- Comparison of SEQ ID NO:17 with SEQ ID NO:1: S14A (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:17

SEQ ID NO:18

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAAGCGAGTAAATTCAGTGGTTTGATGGAAAATATGAAAG
TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTACTATCAATGTTATTTTTCTAAAAAACGAATGATA
TTAATTCACATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGA
TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAG
AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTTCGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

SEB naturally-occurring variant, amino acid sequence

SEQ ID NO:19

ESQPDPKPDELHK**SK**FTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYNVRVEFK
NKDLADKYKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSI**S**VRVFE
DGKNLLSFDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPPAGDK
FDQSKYLMYNDNKMVDSKDVKIEVYLTTKK

- Comparison of SEQ ID NO:19 with SEQ ID NO:1: T133S (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:19

SEQ ID NO:20

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGGAAAATATGAAAG
TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATA
TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGA
TAAATATAGAAGTATTTCTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAG
AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTTCGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Fig. 1 (continued)

SEB naturally-occurring variant

SEQ ID NO:21

ESQPDPKPDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
YKDKYLDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFE~~DK~~GNLLSFDVQTNK
KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWYDMPAPGDKFDQSKYLMMYNDNKMVDSKDV
KIEVYLTTKKK

- Comparison of SEQ ID NO:21 with SEQ ID NO:1: V82L (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:21

SEQ ID NO:22

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAC~~T~~GGTTTGATGGAAAAT
ATGAAAGTTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATAC
TTTGACTTAATATATTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTGAGTCAATTTTAAA
AACAAAGATTTAGCTGATAAATACAAAGATAAATACTTAGATGTGTTTGGAGCTAATTATTATTATCAA
TGTTATTTTTCTAAAAAACGAATGATATTAATTCGCATCAAACGACAAACGAAAACTTGTATGTAT
GGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAGAAGTATTACTGTTCCGGGTATTTGAA
GATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTGACTGCTCAAGAATTAGATTAC
CTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACGCGCTTATGAAACGGGATATATTA
AATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGATAAATTTGACCAATCTAAATA
TTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAAGTTTATCTTACGACAAAGAAA
AAG

SEB naturally-occurring variant

SEQ ID NO:23

ESQPDPKPDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
YKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFE~~DK~~GNLLSFDVQTNK
KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWYDMPAPGDKFDQSKYLMMYNDNKMVDSKDV
KIEVYLTTKKK

- Comparison of SEQ ID NO:23 with SEQ ID NO:1: K141E (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:23

SEQ ID NO:24

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAC~~T~~GGTTTGATGGAAAATATGAAAG
TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTGAGTCAATTTAAAAACAAAGATTTAGCTGATAAA
TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTCTAAAAAACGAATGATA
TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGA
TAAATATAGAAGTATTACTGTTCCGGGTATTTGAAGATGGTGAAAATTTATTATCTTTTGACGTACAACTAATAAG
AAAAAGGTGACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

SEB naturally-occurring variant

SEQ ID NO:25

ESQPDPKPDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
YKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFE~~DK~~GNLLSFDVQ~~IN~~K
KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWYDMPAPGDKFDQSKYLMMYNDNKMVDSKDV
KIEVYLTTKKK

- Comparison of SEQ ID NO:25 with SEQ ID NO:1: T150I (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

Fig. 1 (continued)

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:25
 SEQ ID NO:26
 GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTATGATGGAAAATATGAAAG
 TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
 TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
 TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATA
 TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGAAGTACGACATAATGGAAACCAATTAGA
 TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAAATTAATAAG
 AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTACGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
 ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
 ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
 AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

SEB naturally-occurring variant
 SEQ ID NO:27

ESQPD**N**PDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
 YKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNK
 KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWYDMPAPGDKFDQSKYLMMYNDNKMVDSKDV
 KIEVYLTTKKK

- Comparison of SEQ ID NO:27 with SEQ ID NO:1: K7N (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:27
 SEQ ID NO:28
 GAGAGTCAACCAGATCCTAATCCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTATGATGGAAAATATGAAAG
 TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
 TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
 TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATA
 TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGAAGTACGACATAATGGAAACCAATTAGA
 TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGATGTACAACTAATAAG
 AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTACGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
 ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
 ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
 AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

SEB naturally-occurring variant
 SEQ ID NO:29

ESQPD**P**KDELHKSSKFTGLMENMKVLYDDNHVSAINVKSIDQFLYFDLIYSIKDTKLGNYDNVRVEFKNKDLADK
 YKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNK
 KKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSFWYDMPAPGDKFDQSKYLMMYNDNKMVD**F**KDV
 KIEVYLTTKKK

- Comparison of SEQ ID NO:29 with SEQ ID NO:1: S225F (bold and underlined), 99.6% sequence identity to SEQ ID NO:1

SEB naturally-occurring variant, nucleotide sequence encoding SEQ ID NO:29
 SEQ ID NO:30
 GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTATGATGGAAAATATGAAAG
 TTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTCTATACTTTGACTTAATATA
 TTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTAGCTGATAAA
 TACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATA
 TTAATTCGCATCAAACGACAAACGAAAACTTGTATGTATGGTGGTGAAGTACGACATAATGGAAACCAATTAGA
 TAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAG
 AAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTACGTCCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTA
 ACAACTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGC
 ACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTG
 AAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Fig. 1 (continued)

Construct 2: Mutant Tandem SEB del22-24, L45R, amino acid sequence, comprising linker "HM" (underlined)

SEQ ID NO:31

ESQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFKNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYNDNKMVDSKDVKIE
VYLTTKKKHMESQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFK
NKDLADKYKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLS
FDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYNDNKMVDSKDVKIEVYLTTKKK

Construct 2: Mutant Tandem SEB del22-24, L45R, nucleic acid sequence encoding SEQ ID NO:31 (linker underlined)

SEQ ID NO:32

ATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATATTCTAG
AGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTGATGAAAGTTTTGTTTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACGTGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAAGTCTGCTACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTGC
CTTATGAAACGGGATATATTTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTACGACAAAGAAAAAGCATATGGAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTA
AATTCAGTGGTTTGATGAAAGTTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATT
TAGATACTTTGACTTAATATATTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAA
AACAAAGATTTAGCTGATAAATACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATT
TTTCTAAAAAACGAATGATATTAATTCGCATCAAACTGACAAACGAAAACTTGTATGTATGGTGGTGTAACTGA
GCATAATGGAACCAATTAGATAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCT
TTTGACGTACAACTAATAAGAAAAAGGTGACTGCTCAAGAATTAGATTACCTAAGTACCTAATTTGGTGAAAA
ATAAAAACTCTATGAATTTAACAACCTCGCCTTATGAAACGGGATATATTAATTTATAGAAAATGAGAATAGCTT
TTGGTATGACATGATGCCTGCACAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAA
ATGGTTGATTCTAAAGATGTGAAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Construct 4: Mutant Tandem SEB del22-24, L45R, amino acid sequence comprising linker "GT" (underlined)

SEQ ID NO:33

ESQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFKNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYNDNKMVDSKDVKIE
VYLTTKKKGTESQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDTKLGNYDNVRVEFK
NKDLADKYKDKYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLS
FDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYNDNKMVDSKDVKIEVYLTTKKK

Fig. 1 (continued)

Construct 4: Mutant Tandem SEB del22-24, L45R, nucleic acid sequence
encoding SEQ ID NO:33 (linker underlined)
SEQ ID NO:34

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACGTACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTTACGACAAAGAAAAAGGGTACCGAGAGTCAACCAGATCCTAAACAGATGAGTTGCACAAATCGAGTA
AATTCAGTGGTTTGATGAAAGTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATT
TAGATACTTTGACTTAATATATTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAA
AACAAAGATTTAGCTGATAAATACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATT
TTTCTAAAAAACGAATGATATTAATTCGCATCAAACGTACAAACGAAAACTTGTATGTATGGTGGTGTAACTGA
GCATAATGGAAACCAATTAGATAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCT
TTTGACGTACAACTAATAAGAAAAAGGTGACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAA
ATAAAAACTCTATGAATTTAACAACCTCGCTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTT
TTGGTATGACATGATGCCTGCACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAA
ATGGTTGATTCTAAAGATGTGAAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Construct 1: Mutant Tandem SEB del22-24, L45R, amino acid sequence
comprising linker "GGG" (underlined)
SEQ ID NO:35

ESQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDITKLGNVDNVRVEFKNKDLADKYKD
KYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNLLSFDVQTNKKKV
TAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYNDNKMVDSKDVKIE
VYLTTKKKGGGSEQDPDKPDELHKSSKFTGLMKVLYDDNHVSAINVKSIDQFRYFDLIYSIKDITKLGNVDNVRVE
FKNKDLADKYKDYVDVFGANYYYQCYFSKKTNDINSHQTDKRKTCMYGGVTEHNGNQLDKYRSITVRVFEDGKNL
LSFDVQTNKKKVTAQELDYLTRHYLVKNKKLYEFNNSPYETGYIKFIENENSWYDMMPAPGDKFDQSKYLMYND
NKMVDSKDVKIEVYLTTKKK

Construct 1: Mutant Tandem SEB del22-24, L45R, nucleic acid sequence
encoding SEQ ID NO:35 (linker underlined)
SEQ ID NO:36

GAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAATCGAGTAAATTCACCGGTTTGATGAAAGTTTGTATG
ATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGATCAATTTAGATACTTTGACTTAATATATTCTATTAA
GGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAATTTAAAAACAAAGATTTAGCTGATAAATACAAAGAT
AAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAATGTTATTTTTCTAAAAAACGAATGATATTAATTCGC
ATCAAACGTACAAACGAAAACTTGTATGTATGGTGGTGTAACTGAGCATAATGGAAACCAATTAGATAAATATAG
AAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTATTATCTTTTGACGTACAACTAATAAGAAAAAGGTG
ACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGGTGAAAAATAAAAACTCTATGAATTTAACAACCTCGC
CTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAATAGCTTTTGGTATGACATGATGCCTGCACCAGGAGA
TAAATTTGACCAATCTAAATATTTAATGATGTACAATGACAATAAAATGGTTGATTCTAAAGATGTGAAGATTGAA
GTTTATCTTTACGACAAAGAAAAAGGGCGGTGGATCCGAGAGTCAACCAGATCCTAAACCAGATGAGTTGCACAAAT
CGAGTAAATTCAGTGGTTTGATGAAAGTTTGTATGATGATAATCATGTATCAGCAATAAACGTTAAATCTATAGA
TCAATTTAGATACTTTGACTTAATATATTCTATTAAGGACACTAAGTTAGGGAATTATGATAATGTTTCGAGTCGAA
TTTAAAAACAAAGATTTAGCTGATAAATACAAAGATAAATACGTAGATGTGTTTGGAGCTAATTATTATTATCAAT
GTTATTTTTCTAAAAAACGAATGATATTAATTCGCATCAAACGTACAAACGAAAACTTGTATGTATGGTGGTGT
AACTGAGCATAATGGAAACCAATTAGATAAATATAGAAGTATTACTGTTTCGGGTATTTGAAGATGGTAAAAATTTA
TTATCTTTTGACGTACAACTAATAAGAAAAAGGTGACTGCTCAAGAATTAGATTACCTAACTCGTCACTATTTGG
TGAAAAATAAAAACTCTATGAATTTAACAACCTCGCTTATGAAACGGGATATATTAAATTTATAGAAAATGAGAA
TAGCTTTTGGTATGACATGATGCCTGCACCAGGAGATAAATTTGACCAATCTAAATATTTAATGATGTACAATGAC
AATAAAATGGTTGATTCTAAAGATGTGAAGATTGAAGTTTATCTTACGACAAAGAAAAAG

Fig. 2

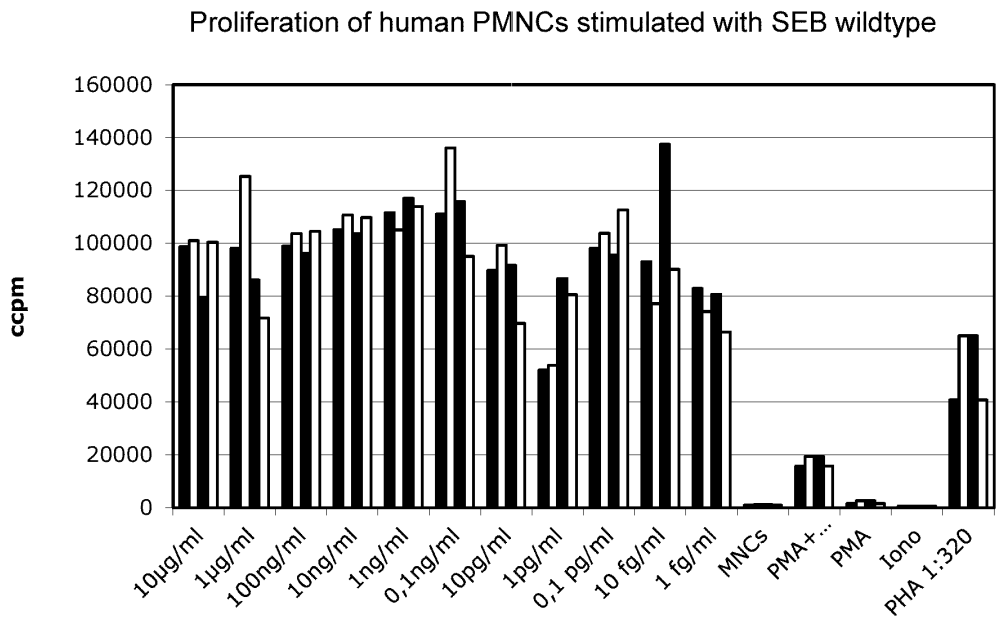


Fig. 3

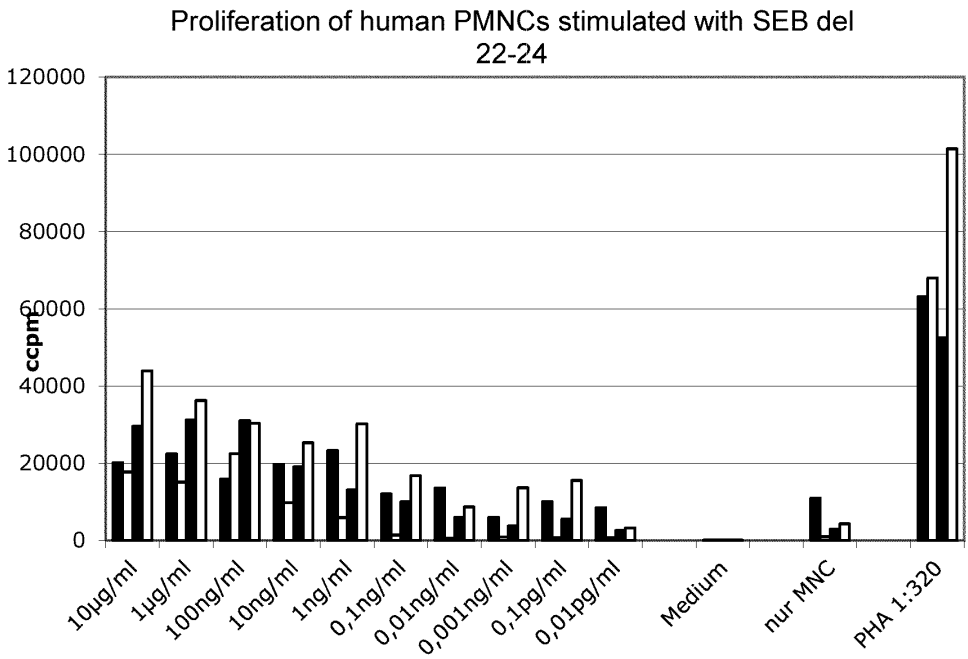


Fig. 4

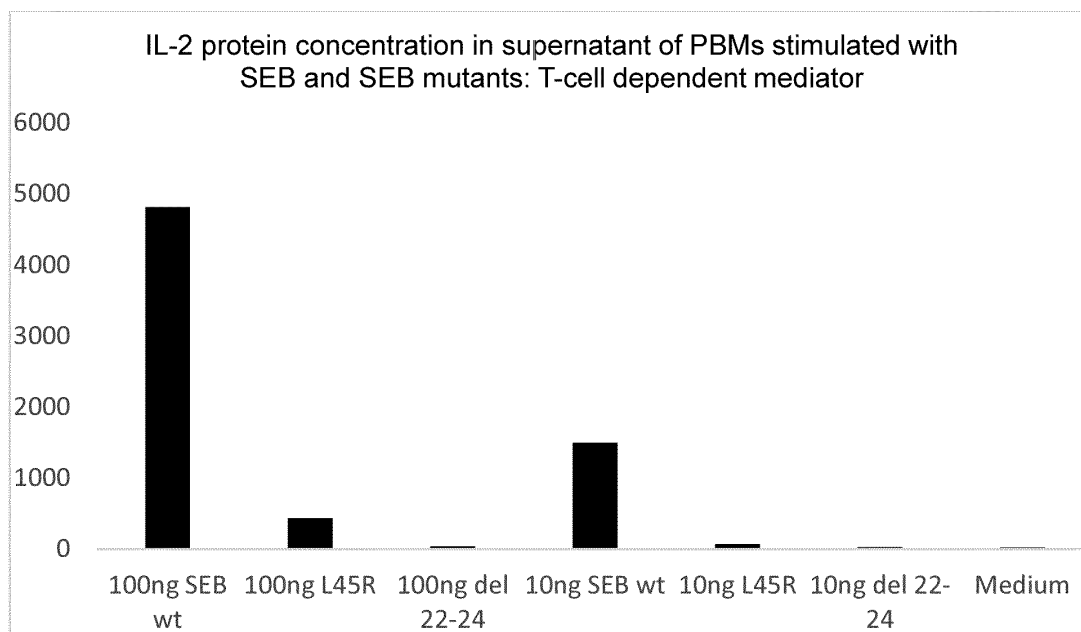


Fig. 5

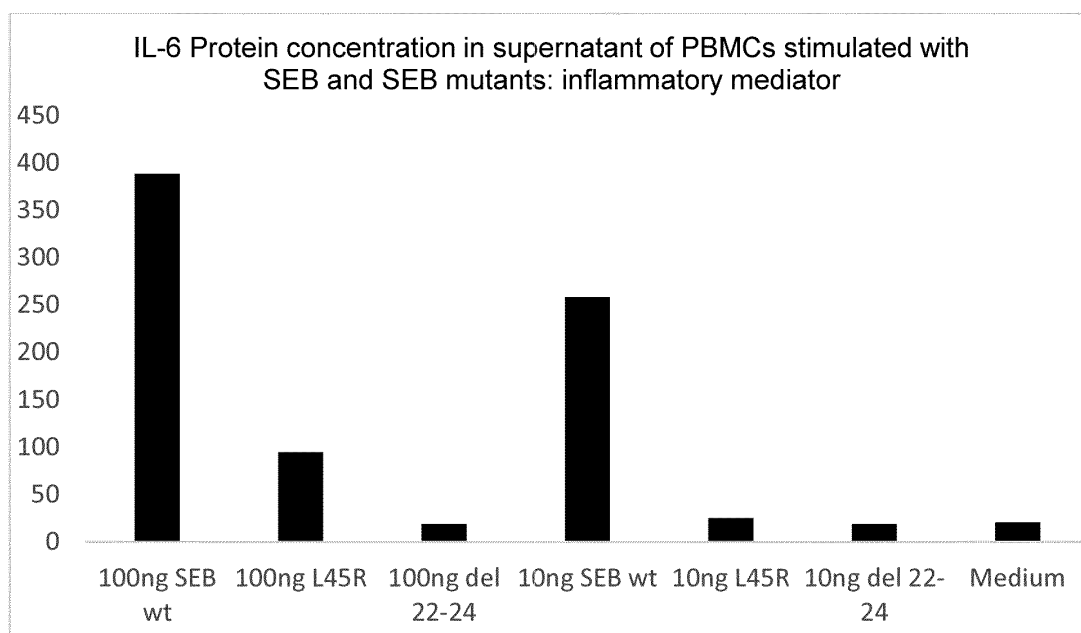


Fig. 6

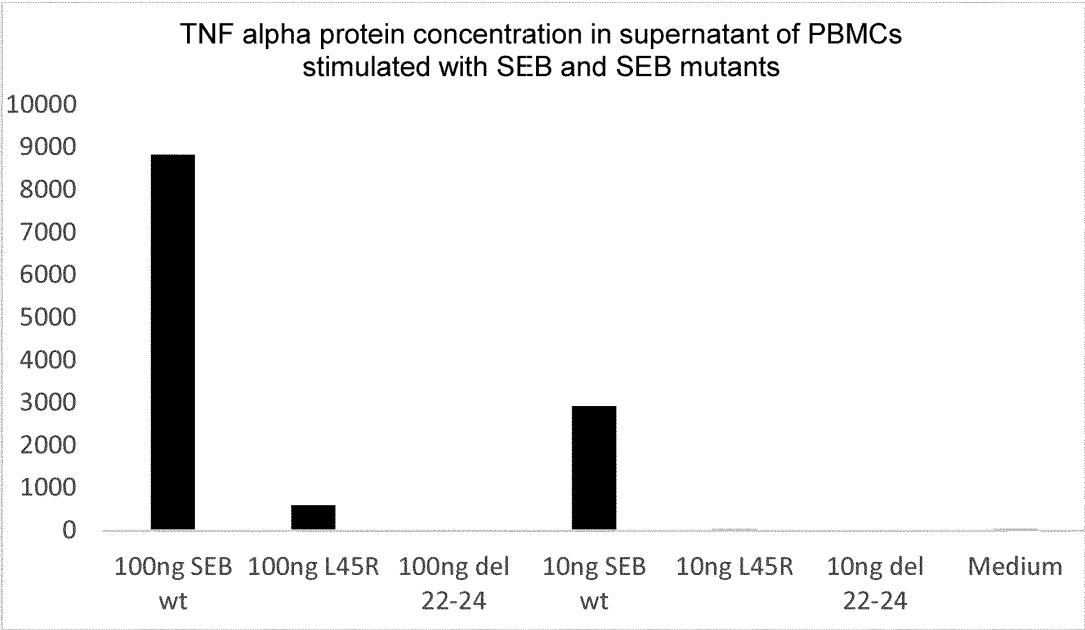


Fig. 7

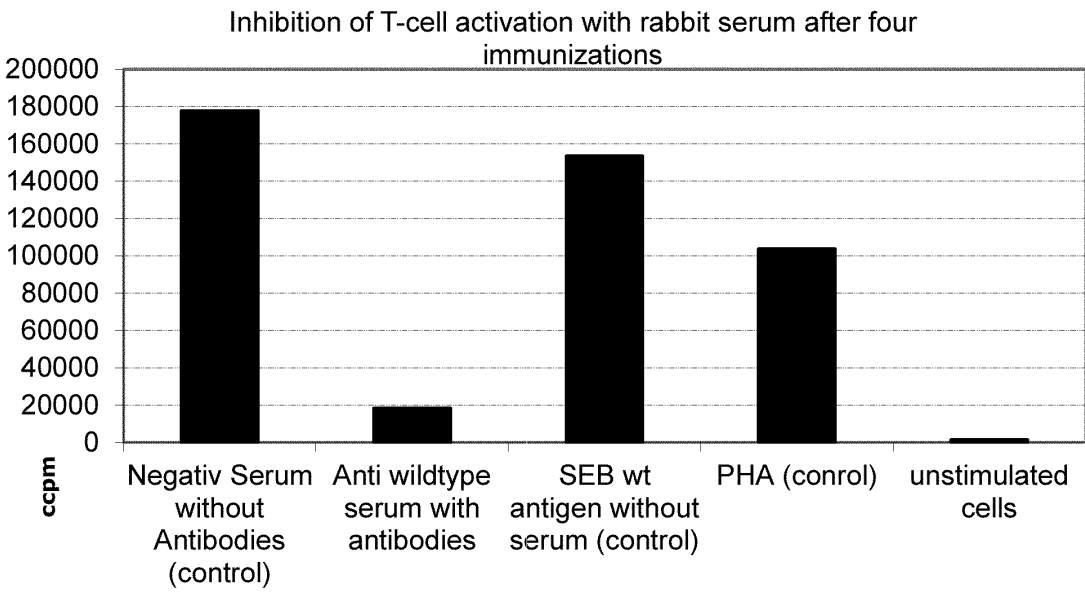


Fig. 8

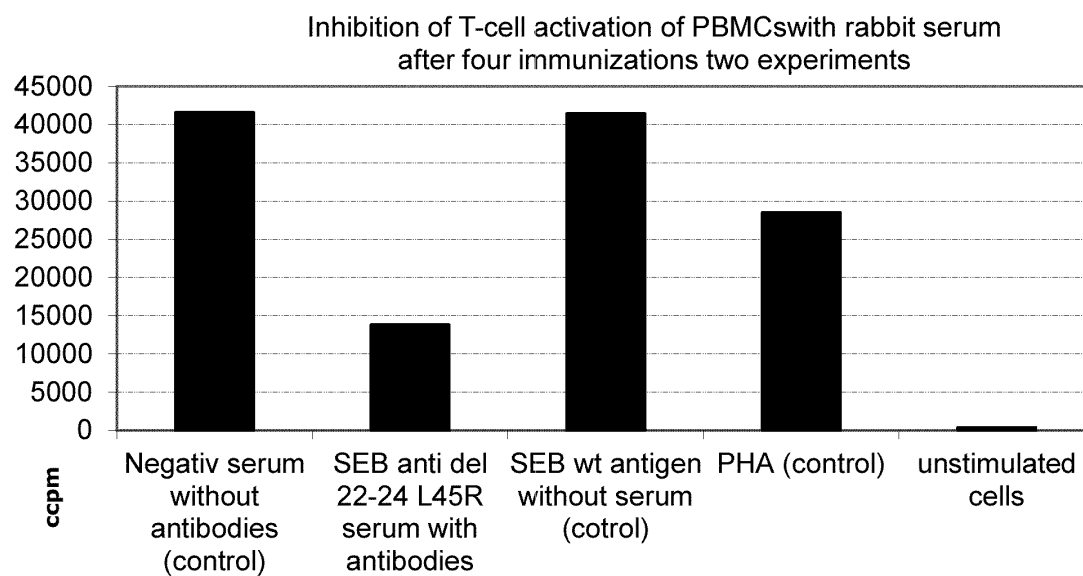


Fig. 9

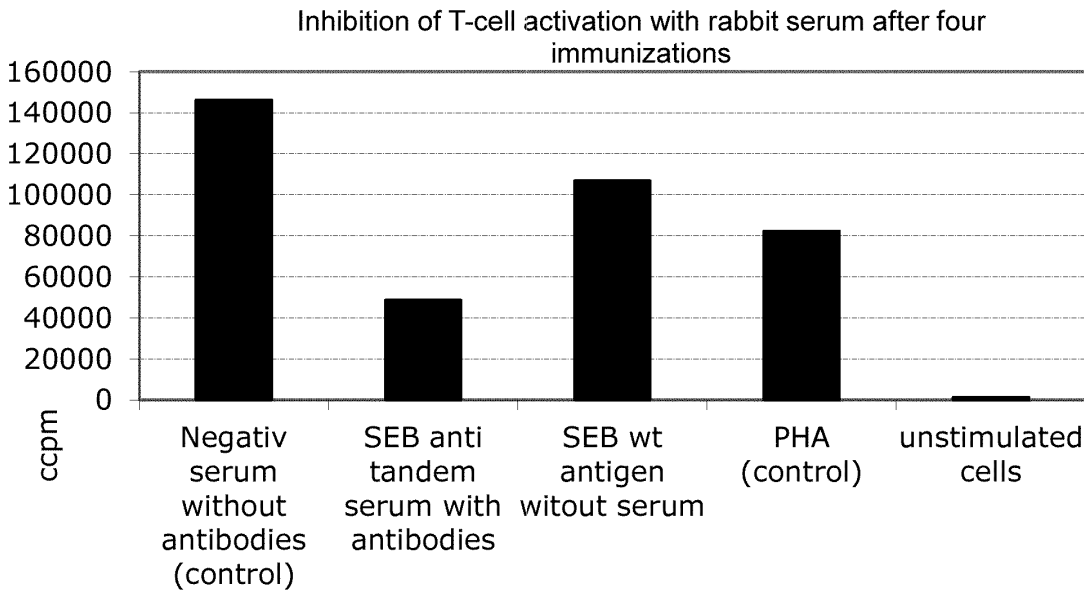


Fig. 10

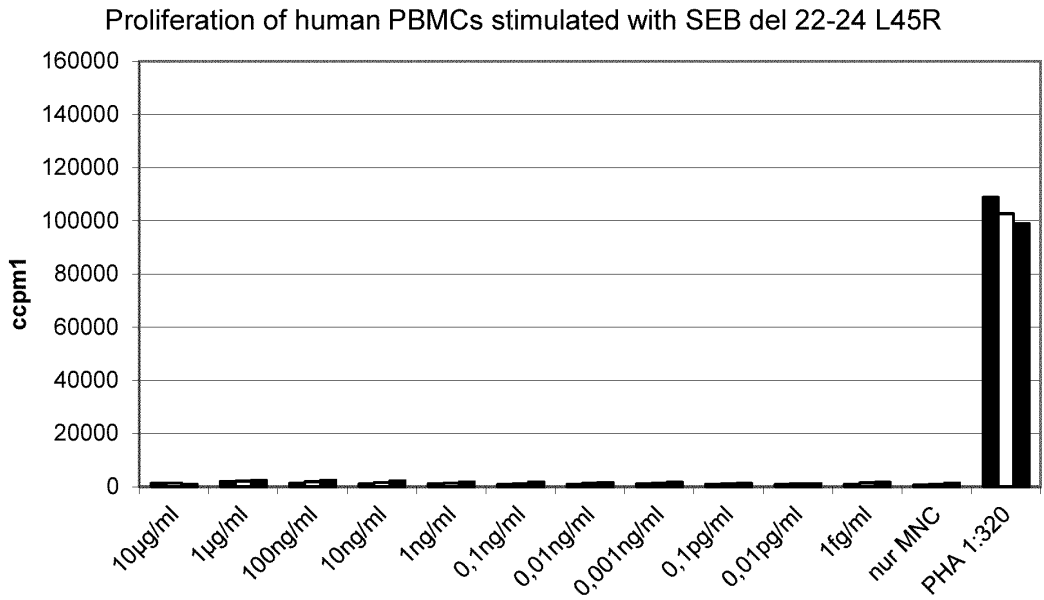


Fig. 11

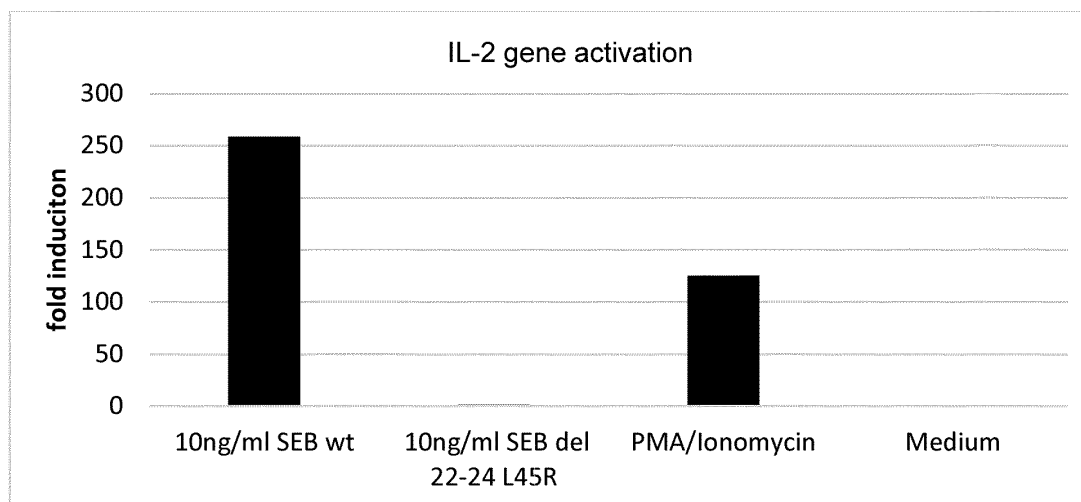


Fig. 12

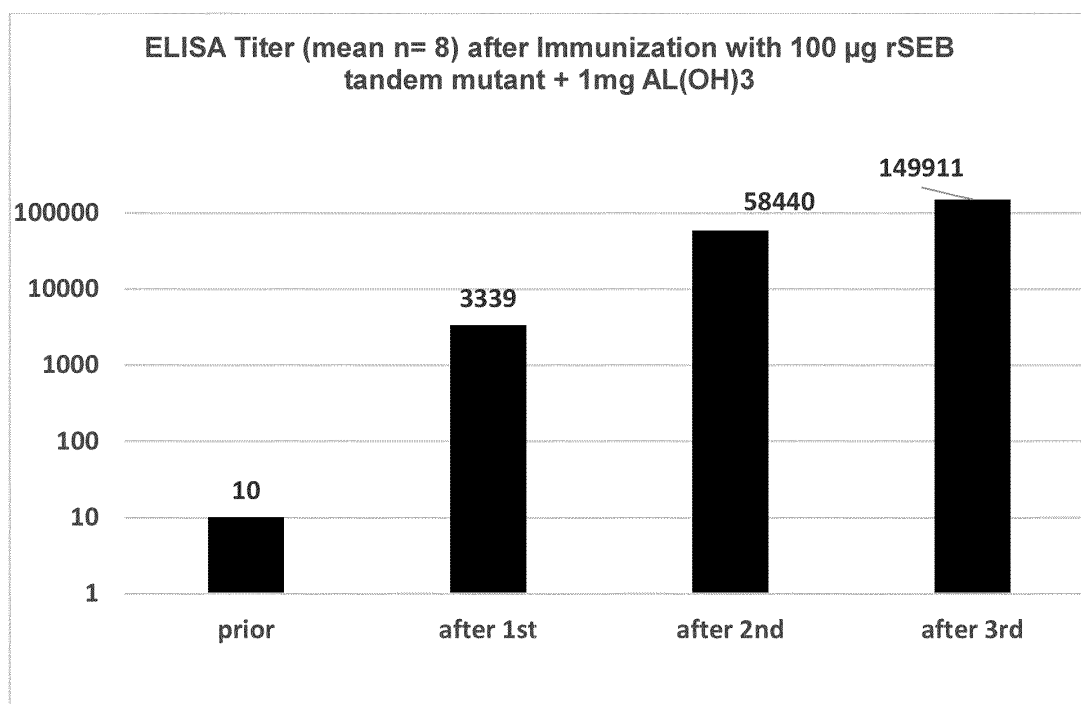


Fig. 13

