**815.vs.c3\_gp120core Nanos**

Kozak

GCCACC

IgE Leader sequence

ATGGACTGGACATGGATTCTGTTCTTGGTGGCTGCAGCCACCCGGGTCCACAGC

LS3

TTGCGATTTGGTATTGTCGCTTCCCGCGCAAACCATGCGCTCGTG

GS-Linker between scafold

GGTGGTTCCGGTGGC

GS-Linker between scaffold and antigen

GGCGGGAGCGGAGGGAGTGGCGGATCTGGCGGGAGCGGCGGAGGC

Stop codon

TGATGA \*\*

IMX

AAAAAACAGGGGGATGCTGATGTCTGCGGAGAGGTGGCTTATATCCAGAGCGTGGTGTCCGACTGCCACGTGCCAACCGCAGAGCTGCGGACACTGCTGGAGATCAGAAAACTGTTCCTGGAGATTCAGAAACTGAAAGTCGAGCTGCAGGGGCTGTCAAAAGAATAATAG

Kozak – IgE leader – LS3 epitope – GS-linker (short) – antigen – GS-linker (long) - IMX - \*\*

FR

CTTTCAAAAGATATTATTAAGCTCCTGAATGAGCAAGTCAATAAAGAAATGCAATCTTCTAACCTGTACATGAGCATGTCTAGCTGGTGTTATACTCACAGTCTCGACGGCGCTGGCCTCTTTCTGTTCGATCACGCCGCTGAAGAATATGAGCACGCGAAGAAGCTTATAATCTTCCTGAACGAGAATAATGTTCCCGTCCAACTGACGTCCATTTCCGCCCCTGAACACAAGTTTGAGGGTCTGACTCAGATCTTTCAAAAGGCGTACGAGCACGAGCAGCATATCAGCGAGAGCATTAACAACATTGTCGATCACGCCATTAAAAGCAAAGACCACGCTACCTTCAACTTTCTCCAATGGTACGTCGCCGAACAGCATGAGGAAGAAGTATTGTTCAAGGATATACTCGATAAGATTGAACTGATCGGAAATGAGAATCACGGCCTGTACCTGGCCGACCAATACGTCAAAGGCATTGCCAAGTCTAGGAAAAGCTAGTAG

Kozak – IgE leader – LS3 epitope – GS-linker (short) – antigen – GS-linker (long) - Ferritin - \*\*

Luminaze Synthase

ATGCAGATCTACGAAGGAAAACTGACCGCTGAGGGACTGAGGTTCGGAATTGTCGCAAGCCGCGCGAATCACGCACTGGTGGATAGGCTGGTGGAAGGCGCTATCGACGCAATTGTCCGGCACGGCGGGAGAGAGGAAGACATCACACTGGTGAGAGTCTGCGGCAGCTGGGAGATTCCCGTGGCAGCTGGAGAACTGGCTCGAAAGGAGGACATCGATGCCGTGATCGCTATTGGGGTCCTGTGCCGAGGAGCAACTCCCAGCTTCGACTACATCGCCTCAGAAGTGAGCAAGGGGCTGGCTGATCTGTCCCTGGAGCTGAGGAAACCTATCACTTTTGGCGTGATTACTGCCGACACCCTGGAACAGGCAATCGAGGCGGCCGGCACCTGCCATGGAAACAAAGGCTGGGAAGCAGCCCTGTGCGCTATTGAGATGGCAAATCTGTTCAAATCTCTGCGA

180mer

CTCTCAATTGCCCCAACGTTGATCAACCGGGACAAGCCATACACGAAAGAGGAACTTATGGAGATATTGCGGTTGGCCATTATAGCTGAACTCGATGCAATTAATCTCTATGAACAAATGGCCCGCTATAGCGAAGACGAAAATGTGAGAAAGATCTTGTTGGACGTCGCTAGGGAAGAGAAAGCACACGTAGGAGAGTTCATGGCTTTGTTGCTTAACCTCGACCCTGAGCAAGTCACAGAGCTGAAGGGCGGGTTCGAGGAAGTTAAAGAATTGACCGGTATAGAAGCTCACATTAATGACAACAAGAAAGAGGAAAGTAATGTAGAGTATTTCGAGAAGCTCAGATCTGCCTTGTTGGATGGAGTCAACAAGGGTCGCAGCTTGCTCAAACATCTGCCCGTTACAAGAATAGAAGGGCAGTCTTTTCGAGTAGACATCATCAAATTTGAGGACGGCGTCCGAGTGGTTAAACAAGAGTATAAGCCTATACCCCTTCTTAAGAAGAAGTTCTACGTCGGCATTCGAGAACTGAATGACGGGACATATGATGTCAGCATTGCTACTAAAGCCGGTGAGCTGCTGGTTAAAGACGAAGAAAGTCTTGTGATCCGGGAAATTTTGTCAACGGAAGGCATCAAGAAAATGAAATTGTCATCCTGGGACAATCCAGAAGAAGCCCTGAATGATTTGATGAATGCGCTCCAAGAAGCTAGCAATGCTAGTGCTGGCCCCTTCGGCCTTATTATCAATCCAAAGCGGTACGCCAAACTGCTGAAGATCTATGAAAAGTCAGGTAAGATGCTCGTAGAAGTACTCAAGGAAATCTTCCGGGGTGGAATAATCGTAACTCTTAATATCGACGAAAACAAAGTGATTATCTTCGCTAATACGCCCGCCGTTCTGGACGTGGTGGTGGGTCAAGACGTTACGCTCCAGGAGCTTGGTCCGGAAGGGGATGATGTCGCATTCCTGGTCAGTGAAGCCATTGGTATAAGAATCAAGAACCCGGAAGCTATAGTTGTTCTCGAA

N460

ATGCAGATCTACGAGGGCAATCTGACCGCCGAGGGCCTGAGATTCGGCATCGTGGCCTCTAGAGCCAACCACGCCCTGGTGGATAGGCTGGTGGAGGGCGCCATCGATGCCATCGTGAGACACGGCGGCAATGGCAGCGATATCACCCTGGTGCGCGTGTGCGGCTCTTGGGAGATCCCAGTGGCCGCCGGCGAGCTGGCCAGAAAGGAGGACATCGATGCCGTGATCGCCATCGGCGTGCTGTGCAGGGGCGCCACCCCTTCTTTCGACTACATCGCCAGCGAGGTGTCTAAGGGCCTGGCCGATCTGTCTCTGGAGCTGAGGAAGCCCATCACATTCGGCGTGATCACAGCCGACACCCTGGAGCAGGCCATCGAGGCCGCCGGCACATGTCACGGCAATAAGGGCTGGGAGGCCGCCCTGTGCGCCATCGAGATGGCCAACCTGTTCAAGAGCCTGAGGGGCGGCGGCGGCGGCGGCTCTGGCGGCGGCGGC

Kozak – IgE leader – N460 – immunogen - \*\*