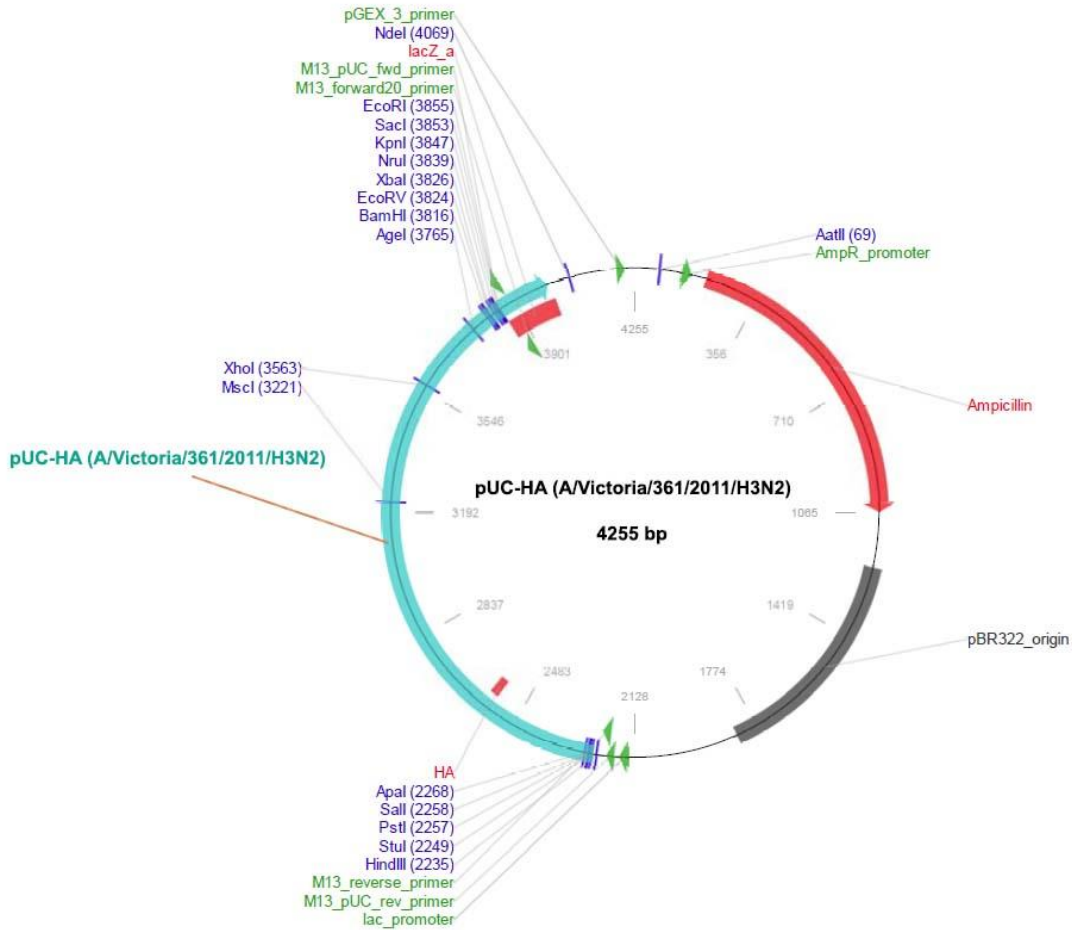


pUC-HA (A/Victoria/361/2011/H3N2)

Cat# HA-V328

Gene Name	pUC-HA (A/Victoria/361/2011/H3N2)
Gene description:	Codon optimized cDNA clone of influenza A hemagglutinin (aa 17-529) (A/Victoria/361/2011)(H3N2) for high-level expression in mammalian cells
cDNA Insert Size	1500 bp codon optimized influenza A hemagglutinin (A/Victoria/361/2011)(H3N2) cDNA sequence corresponding to amino acid 17-529 (Gene accession# AGB08328.1)
Vector	pUC57
Storage	4 °C

Construct map:



Detailed sequence of the whole construct (pUC-HA (A/Victoria/361/2011/H3N2):

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1 GACGAAAGGG CCTCGTGATA CGCCTATTTT TATAGGTTAA TGTCATGATA ATAATGGTTT CTTAGACGTC AGGTGGCACT
81 TTTTCGGGGAA ATGTGCGCGG AACCCCTATT TGTTTATTTT TCTAAATACA TTCAAATATG TATCCGCTCA TGAGACAATA
161 ACCCTGATAA ATGCTTCAAT AATATTGAAA AAGGAAGAGT ATGAGTATTC AACATTTCCG TGTCGCCCTT ATTCCCTTTT
241 TTGCGGCATT TTGCCTTCCT GTTTTGTGCTC ACCCAGAAAC GCTGGTGAAA GTAAAAGATG CTGAAGATCA GTTGGGTGCA
321 CGAGTGGGTT ACATCGAACT GGATCTCAAC AGCGGTAAGA TCCTTGAGAG TTTTCGCCCC GAAGAACGTT TTCCAATGAT
401 GAGCACTTTT AAAGTCTCTG TATGTGGCGC GGTATTATCC CGTATTGACG CCGGGCAAGA GCAACTCGGT CGCCGCATAC
481 ACTATTCTCA GAATGACTTG GTTGTAGTAC CACCAGTCAC AGAAAAGCAT CTTACGGATG GCATGACAGT AAGAGAATTA
561 TGCAGTGTCTG CCATAACCAT GAGTGATAAC ACTGCGGCCA ACTTACTTCT GACAACGATC GGAGGACCGA AGGAGCTAAC
641 CGCTTTTTTTG CACAACATGG GGGATCATGT AACTCGCCTT GATCGTTGGG AACCGGAGCT GAATGAAGCC ATACCAAACG
721 ACGAGCGTGA CACCACGATG CCTGTAGCAA TGGAACAAC GTTGGCAAA CTATTAACG CCGAACTACT TACTCTAGCT
801 TCCCGGCAAC AATTAATAGA CTGGATGGAG GCGGATAAAG TTGCAGGACC ACTTCTGCGC TCGGCCCTTC CGGCTGGCTG
881 GTTTATTGCT GATAAATCTG GAGCCGGTGA GCGTGGGTCT CGCGGTATCA TTGCAGCACT GGGGCCAGAT GGTAAGCCCT
961 CCCGTATCGT AGTTATCTAC ACGACGGGGA GTCAGGCAAC TATGGATGAA CGAAATAGAC AGATCGTGA GATAGGTGCC
1041 TCACTGATTA AGCATTGGTA ACGATGAGTA CAAGTTTACT CATATATACT TTAGATTGAT TTAAGACTTC ATTTTAAATT
1121 TAAAAGGATC TAGGTGAAGA TCCTTTTTGA TAATCTCATG ACCAAAATCC CTTAACGTGA GTTTTTCGTT CACTGAGCGT
1201 CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC TTTTTTCTG CGCGTAATCT GCTGCTTGCA AACAAAAAAA
1281 CCACCGCTAC CAGCGTGGT TTGTTTGGC GATCAAGAGC TACCAACTCT TTTTCCGAAG GTAAGTGGT TCAGCAGAGC
1361 GCAGATACCA AATACTGTTC TTCTAGTGTA GCCGTAGTTA GGCCACCCT TCAAGAACTC TGTAGCACCC CCTACATACC
1441 TCGCTCTGCT AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACC GGTGGACTC AAGACGATAG
1521 TTACCGGATA AGGCGCAGC GTCGGGCTGA ACGGGGGTTC CGTGCACACA GCCCAGCTTG GAGCGAAGCA GCCTACACCGA
1601 ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGCGCCACG CTTCCCAGG GAGAGAAAGC GGACAGGTAT CCGGTAAGCG
1681 GCAGGGTCGG AACAGGAGAG CGCACGAGG AGCTTCCAG GGGAAACGCC TGGTATCTTT ATAGTCCTGT CGGGTTTCGC
1761 CACCTCTGAC TTGAGCGTCG ATTTTTGTGA TGCTCGTCAG GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGGCCCT
1841 TTTACGGTTC CTGGCCTTTT GCTGGCCTTT TGCTCACATG TTCTTTCCTG CGTTATCCCC TGATTCTGTG GATAACCGTA
1921 TTACCGCCTT TGAGTGAGCT GATACCGCTC GCCCGAGCCG AACGACCGAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA
2001 GAGCGCCCAA TACGCAAAC GCCTCTCCCC GCGCGTTGGC CGATTATTA ATGCAGCTG CAGCAGAGT TTCCCAGCTG
2081 GAAAGCGGGC AGTAGCGCA ACGCAATTAA TGTGAGTTAG TCTACTCATT AGGCACCCCA GAGCTTTACG TTTATGCTTC
2161 CGGCTCGTAT GTTGTGTGGA ATTTGTGAGC GATAACAATT TCACACAGGA AACAGCTATG ACCATGATTA CGCCAAGCTT
2241 GCATGCAGGC CTCTGCAGTC GACGGGCCCG ACCAAAAACT GCCCGCAAT GACAACAGCA CTGCAACCCT CTGTCTCGGA
2321 CATCACGCAG TCCCAAACGG AACAATCGTG AAGACCATCA CAAACGACCA GATCGAGGTG ACCAACGCAA CCGAGCTTGT
2401 GCAGAACTCC AGTATCGGAG AGATCTGTGA CTCCCCACAC CAAATCCTCG ACGGAGAAAA CTGCACCCTT ATCGACGCTC
2481 TTCTGGGAGA CCCTCAATGT GACGGATTCC AGAACAAGAA GTGGGACCTG TTCGTGGAGC GCTCTAAGGC TTACTCTAAC
2561 TGCTACCCTT ACGACGTGCC AGACTACGTT TCCCTTAGAA GCTTCGTGGC TTCATCCGGA ACATTTGGAT TCAACAACGA
2641 GTCCCTCAAC TGGACCGGGG TCACACAGAA CGGCACATCA CTGTCTTGCA TCAGAAGGTC CAACAACCTC TTCTTCTCCC
2721 GGTGAACTG GCTGACCCAG TTGAACTTCA AGTACCCCGC TCTGAACGTG ACCATGCCAA ACAACGAGCA GTTCGACAAG
2801 CTGTACATCT GGGGGGTCCA CCATCCTGTG ACCGATAAAG ACCAGATCTT CCTGTACGCC CAGTCTTACG GCAGAATCAC
2881 TGTGTCCACC AAGAGATCCC AGCAGGCCGT GATTCCTAAC ATCGGCTACA GACCAAGGAT CAGGAACATC CCCAGTAGGA
2961 TCAGTATCTA CTGGACCATC GTCAAGCCTG GGGACATCTT GCTGATCAAC AGCACCGGGA ACTTGATCGC CCCAGGGGCG
3041 TATTTTAAAG TCAGGAGTGG GAAGAGCAGC ATTATGAGGA GCGACGCCCC CATTGGCAA TGCAACAGCG AATGCATTAC
3121 TCCCAACGGG AGCATTTCCA ACGACAAGC CTTTCAGAA GTCAACAGGA TTACATACGG CGCCTGCCCC AGGTATGTCA
3201 AGCAGAGCAC ACTGAAGCTG GCCACAGGGA TCGGGAATGT GCCCGAAAAA CAGACTCGGG GGATTTTTGG CGCCATTGCC
3281 GGCTTTATCG AAAATGGCTG GGAAGGGATG GTGGATGGGT GGTATGGCTT CCGGCATCAG AATAGCGAAG GCGCGGGCCA
3361 GGCCGCCGAT CTGAAAAGCA CTCAGGCCGC CATTGATCAG ATTAATGGGA AACTGAACCG GCTGATTGGC AAAACAAACG
3441 AGAAATTTCA CCAGATTGAG AAAGAGTTTT CCAGGTCGA GGGGCGGATT CAGGATCTGG AGAAGTACGT CGAGGATACT
3521 AAGATTGATC TGTGGAGCTA CAACGCCGAG CTGCTGTTGG CCTCGAGAA CCAGCACACA ATTGATCTGA CAGATAGCGA
3601 GATGAACAAG CTCTTTGAGA AGACTAAGAA GCAGTCCGC GAGAACGCC AGGATATGGG CAACGGGTGC TTTAAGACTT
3681 ACCACAAGTG CGATAACGCC TGCATTGGCT CCATTCGGAA CCGGACATAC GATCACGATG TGTACCGGGA TGAGGCCCTC
3761 AACAAACGGT TTCAGATTAA GGGCGTCGAG CTGAAGTCCG GCTACAAGGA TGAACGGGAT CGATATCTAG ATGCATTCCG
3841 GAGGTACCGA GCTCGAATTC ACTGGCCGTC GTTTTACAAC GTCGTGACTG GGAAAACCCCT GCGGTTACCC AACTTAATCG
3921 CCTTGACGCA CATCCCCTT TCGCCAGCTG GCGTAATAGC GAAGAGGCC GCACCGATCG CCCTTCCCAA CAGTTGCGCA
4001 GCCTGAATGG CGAATGGCGC CTGATGCGGT ATTTTCTCCT TACGCATCTG TGCGGTATTT CACACCGCAT ATGGTGCAC
4081 CTCAGTACAA TCTGCTCTGA TGCCGCATAG TTAAGCCAGC CCCGACACCC GCCAACACCC GCTGACGCGC CCTGACGGGC
4161 TTGTCTGCTC CCGCATCCG CTTACAGACA AGCTGTGACC GTCTCCGGGA GCTGCATGTG TCAGAGGTTT TCACCGTCA
4241 CACCGAAACG CGCGA

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Note: HA sequence (2273 bp – 3813 bp) is highlighted in yellow color

Detailed amino acid sequence of the codon optimized cDNA clone:

1 QKLPGNDNST ATLCLGHHAV PNGTIVKTIT NDQIEVTNAT ELVQNSSIGE ICDSPHQILD GENCTLIDAL LGDPQCDGFQ
81 NKKWDLFVER SKAYSNCYPY DVPDYASLRS LVASSGTLEF NNESEFNWTV TQNGTSSACI RRSNNSFFSR LNWLTQLNFK
161 YPALNVTMPN NEQFDKLYIW GVHHPVTDKD QIFLYAQSSG RITVSTKRSQ QAVIPNIGYR PRIRNIPSRI SIYWTIVKPG
241 DILLINSTGN LIAPRGYFKI RSGKSSIMRS DAPIGKCNSE CITPNGSIPN DKPFQNVNRI TYGACPRYVK QSTLKLATGM
321 RNVPEKQTRG IFGAIAGFIE NGWEGMVDGW YGFRHQNSEG RGQAADLKST QAAIDQINGK LNRLIGKTNE KFHQIEKEFS
401 EVEGRIQDLE KYVEDTKIDL WSYNAELLVA LENQHTIDLT DSEMNKLFEK TTKQLRENAE DMGNGCFKIY HKCDNACIGS
481 IRNGTYDHDV YRDEALNNRF QIKGVELKSG YKD