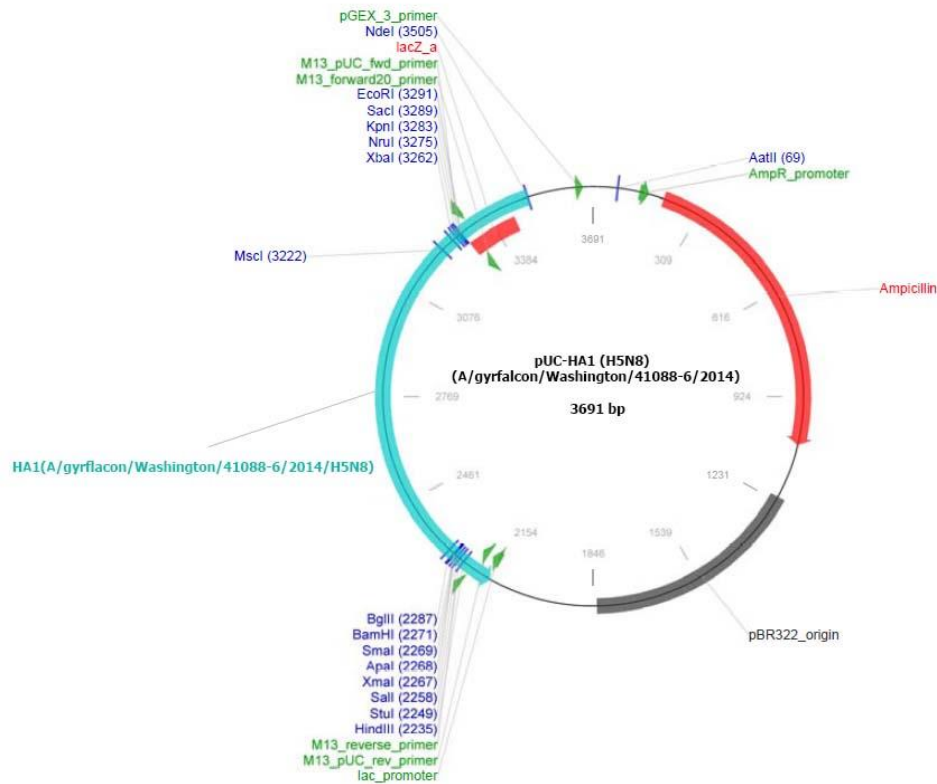


pUC-HA1 (A/gyrfalcon/Washington/41088-6/2014/H5N8)

Cat# HA-W058

Gene Name	pUC-HA1 (A/gyrfalcon/Washington/41088-6/2014)(H5N8)
Gene description:	Codon optimized cDNA clone of H5N8 hemagglutinin (aa 17-341) (A/gyrfalcon/Washington/41088-6/2014) for high-level expression in mammalian cells
cDNA Insert Size	975 bp codon optimized H5N8 hemagglutinin (A/gyrfalcon/Washington/41088-6/2014) cDNA corresponding to amino acid 17-341 (Gene accession# AJE30333)
Vector	pUC57
Cloning Site	BamH I/EcoR I
Concentration	10 µl (40 ng/µl), dissolved in 10 mM Tris/HCl (pH 8.5)
Storage	4 °C



Detailed sequence of the whole construct (pUC-HA1 (A/gyrfalcon/Washington/41088-6/2014/H5N8):

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1 GACGAAAGGG CCTCGTGATA CGCCTATTTT TATAGGTTAA TGTCATGATA ATAATGGTTT CTTAGACGTC AGGTGGCACT
81 TTTCGGGGAA ATGTGCGCGG AACCCCTATT TGTTTATTTT TCTAAATACA TTCAAATATG TATCCGCTCA TGAGACAATA
161 ACCCTGATAA ATGCTTCAAT AATATTGAAA AAGGAAGAGT ATGAGTATTC AACATTTCCG TGTCGCCCTT ATTCCCTTTT
241 TTGCGGCATT TTGCCTTCCT GTTTTGTCTC ACCCAGAAAC GCTGGTGAAA GTAAAAGATG CTGAAGATCA GTTGGGTGCA
321 CGAGTGGGTT ACATCGAACT GGATCTCAAC AGCGGTAAGA TCCCTGAGAG TTTTCGCCCC GAAGAACGTT TTCCAATGAT
401 GAGCACTTTT AAAGTTCTGC TATGTGGCGC GGTATTATCC CGTATTGACG CCGGGCAAGA GCAACTCGGT CGCCGCATAC
481 ACTATTCTCA GAATGACTTG GTTGAGTACT CACCAGTCAC AGAAAAGCAT CTTACGGATG GCATGACAGT AAGAGAATTA
561 TGCAGTGTCT CCATAACCAT GAGTGATAAC ACTGCGGCCA ACTTACTTCT GACAACGATC GGAGGACCGA AGGAGCTAAC
641 CGCTTTTTTTG CACAACATGG GGGATCATGT AACTCGCCTT GATCGTTGGG AACCGGAGCT GAATGAAGCC ATACCAAACG
721 ACGAGCGTGA CACCACGATG CCTGTAGCAA TGGAACAAC GTTGGCAAA CTATTAAC TGCAACTACT TACTCTAGCT
801 TCCCGGCAAC AATACTAGTA CTGGATGGAG GCGGTAGTTA TTGCGAGACC ACTTCTGCGC TCGGCCCTTC CCGTGCATC
881 GTTTTATTGCT GATAAATCTG GAGCCGGTGA GCGTGGGTCT GCGGGTATCA TTGCAGCACT GGGGCCAGAT GGTAAGCCCT
961 CCCGTATCGT AGTTATCTAC ACGACGGGGA GTCAGGCAAC TATGGATGAA CGAAATAGAC AGATCGCTGA GATAGGTGCC
1041 TCACTGATTA AGCATTTGTA ACTGTCAGAC CAAGTTTACT CATATATACT TTAGATTGAT TTAAAACTTC ATTTTTAATT
1121 TAAAAGGATC TAGGTGAAGA TCCTTTTTGA TAATCTCATG ACCAAAATCC CTTAACGTGA GTTTTTCGTT CACTGAGCGT
1201 CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC TTTTTTCTG CGCGTAATCT GCTGCTTGCA AACAAAAAAA
1281 CCACCGCTAC CAGCGGTGGT TTGTTTGCCG GATCAAGAGT TACCAACTCT TTTTCCGAAG GTAACCTGGT TCAGCAGAGC
1361 GCAGATFACA AATACTGTTT TTCTAGTGTA GCGGTAGTTA GGCACACCCT TCAAGAACTC TGAGGCACCG CCGTGCATC
1441 TCGCTCTGCT AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG GGTGGACTC AAGACGATAG
1521 TTACCGGATA AGGCGCAGCG GTCGGGCTGA ACGGGGGGTT CGTGCACACA GCCCAGCTTG GAGCGAACGA CCTACACCGA
1601 ACTGAGATAC CTACAGCGTG AGCTATGAGA AAGGCCACG CTCCCAGAG GGAGAAAGGC GGACAGGTAT CCGGTAAGCG
1681 GCAGGTCGG AACAGGAGAG CGCAGGAGG AGCTTCCAGG GGAAACGCC TGGTATCTTT ATAGTCCTGT CCGGTTTCGC
1761 CACCTCTGAC TTGAGCGTGC ATTTTTGTGA TGCTCGTCAG GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGCCCTT
1841 TTTACGGTTC CTGGCCTTTT GCTGGCCTTT TGCTCACATG TTCTTTCCTG CGTTATCCCT TGATTCTGTG GATAACCGTA
1921 TTACCGCCTT TGAGTGAGCT GATACCGCTC GCGCAGCCG AACGACCCAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA
2001 GAGCGCCCAA TACGCAAACC GCCTCTCCCC GCGCGTTGGC CGATTCAATTA ATGCAGCTGG CACGACAGGT TTCCCGACTG
2081 GAAAGCGGGC AGTGAGCGCA ACGCAATTAA TGTGAGTTAG CTCACTCATT AGGCACCCCA GGCTTTACAC TTTATGCTTC
2161 CGGCTCGTAT GTTGTGTGGA ATTGTGAGCG GATAACAATT TCACACAGGA AACAGCTATG ACCATGATTA CGCCAAGCTT
2241 GCATGCAGGC CTCTGCAGTC GACGGGCCCG GGATCCGATG AC GACCAGAT CTGCATCGGC TACCACGCCA ACAACAGCAC
2321 CAAGCAGGTG GACACCATCA TGGAGAAGAA CGTGACCGTG ACCCACGCCC AGGACATCCT GGAGAAGACC CACAACGGCA
2401 AGCTGTGCGA CCTGAACGGC GTGAAGCCCT TGATCCTGAA GGACTGCAGC GTGGCCGGCT GGCTGTCTGG CAACCCCATG
2481 TGCGACGAGT TCATCAGAGT GCCCGAGTGG AGCTACATCG TGGAGAGAGC CAACCCCGCC AACGACCTGT GCTACCCCGG
2561 CACCCTGAAC GACTACGAGG AGCTGAAGCA CCTGCTGAGC AGAATCAACC ACTTCGAGAA GACCCTGATC ATCCCCCGTT
2641 CCTCTTGGCC CAACCACGAG ACCAGCCTGG GCGTGAGCGC CGCTGCCCC TACCAAGGCG CCAGCAGCTT CTTCAGAAAC
2721 GTGGTGTGGC TGATCAAGAA GAACGACGCC TACCCACCA TCAAGATCAG CTACAACAAC ACCAACAGAG AGGACCTGCT
2801 GATCCTGTGG GGCATCCACC ACAGCAACAA CGCCGCCGAG CAGACCAACC TGTACAAGAA CCCCACACC TATGTGAGCG
2881 TGGGCACCG CACCCTGAAC CAGAGACTGG TGCCCAAGT CGCCACCAGA AGCCAAGTGA ACGCCAGAG CCGCAGAATG
2961 GACTTCTTCT GGACCATCCT GAAGCCCAAC GACGCCATCC ACTTCGAGAG CAACGGCAAC TTCATCGCCC CCGAGTACGC
3041 CTACAAGATC GTGAAGAAGG GCGACAGCAC CATCATGAAG AGCGAGATGG AGTACGGCCA CTGCAACACC AAGTGCCAGA
3121 CCCCCATCGG CGCCATCAAC AGCAGCATGC CCTTCCAAA CATCCACCCC CTGACCATCG GCGAGTGCCC CAAATACGTA
3201 AAGAGCAACA AGCTGGTGTG GGCCACCGGC CTGAGAAACA GCCCCTGAG AGAGAGAGTC ATCTAGATGC ATTCGCGAGG
3281 TACCGAGCTC GAATTCACTG GCCGTCGTTT TACAACGTCG TGAATGGGAA AACCTTGGCG TTACCCAACT TAATCGCCTT
3361 GCAGCACATC CCCCTTTCG CAGTGGCGT AATAGCGAAG AGGCCCGCAC CGATCGCCCT TCCCAACAGT TGCGCAGCCT
3441 GAATGGCGAA TGCGCCTGA TGCGGTATT TCTCCTTAC CATCTGTGCG CATCTTACA GTATTTTACA CCGCATATGG TGCACCTCA
3521 GTACAATCTG CTCTGATGCC GCATAGTTAA GCACGCCCGC ACACCCGCCA ACACCCGCTG ACGCGCCCTG ACGGGCTTGT
3601 CTGCTCCCGG CATCCGCTTA CAGACAAGCT GTGACCGTCT CCGGGAGCTG CATGTGTGAG AGGTTTTTAC CGTCATCAC
3681 GAAACGCGCG A

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Note: HA1 sequence (2283 bp – 3257 bp) is highlighted in yellow color

Detailed amino acid sequence of the HA1 (aa 17-341) (A/gyrfalcon/Washington/41088-6/2014/H5N8):

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1 DQICIGYHAN NSTKQVDTIM EKNVTVTHAQ DILEKTHNGK LCDLNGVKPL ILKDCSVAGW LLGNPMCDEF IRVPEWSYIV
81 ERANPANDLC YPGTLNDYEE LKHLLSRINH FEKTLIIPRS SWPNHETSLG VSAACPYQGA SSFFRNVVWL IKKNDAYPTI
161 KISYNNNTNRE DLLILWGIHH SNNAEQTNL YKNPDYTVSV GTSTLNQRLV PKIATRSQVN GQSGRMDFFW TILKPNDAIH
241 FESNGNFIAP EYAYKIVKKG DSTIMKSEME YGHCNTKCQT PIGAINSSMP FHNHPLTIG ECPKYVKSNNK LVLATGLRNS
321 PLRER

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