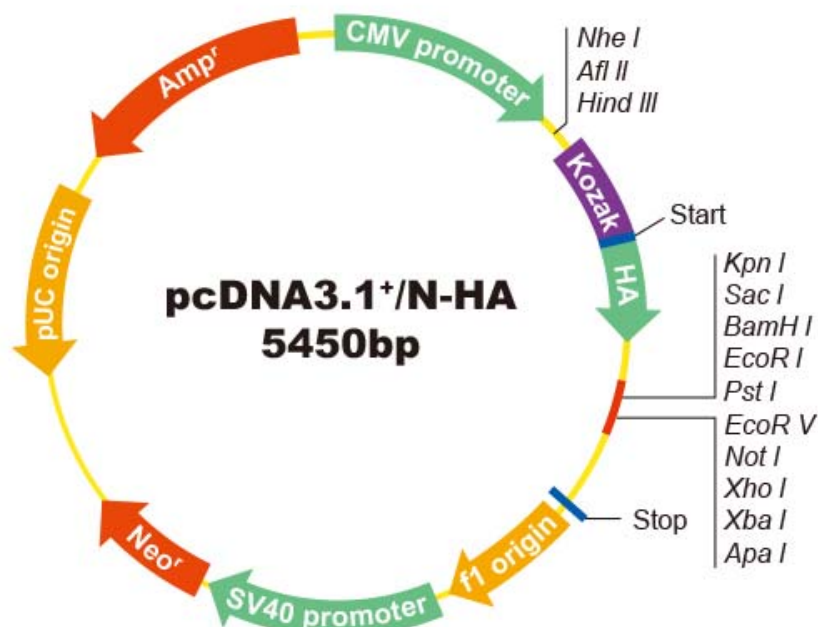


pcDNA3.1⁺/N-HA Vector Map



```

--- AGC TGG CTA GCG TTT AAA CTT AAG CTT GCC ACC ATG TAC CCA TAC GAT GTT
      Nhe I           Afl II           Kozac seq M Y P Y D V
                                HA tag

CCA GAT TAC GCT GGT ACC GAG CTC GGA TCC GAA TTC TGC AGA TAT CCA GCA CAG
P D Y A Kpn I Sac I BamH I EcoR I Pst I
                                HA tag

TGG CGG CCG CTC GAG TCT AGA GGG CCC GTT TAA ---
      Xho I Xba I Apa I Stop
  
```

pcDNA3.1⁺/N-HA Sequence (5450bp):

```

1      GACGGATCGG GAGATCTCCC GATCCCCTAT GGTGCACTCT CAGTACAATC TGCTCTGATG
61     CCGCATAGTT AAGCCAGTAT CTGCTCCCTG CTTGTGTGTT GGAGGTCGCT GAGTAGTGCG
121    CGAGCAAAAT TTAAGCTACA ACAAGGCAAG GCTTGACCGA CAATTGCATG AAGAATCTGC
181    TTAGGGTTAG GCGTTTTCG CTGCTTCGCG ATGTACGGGC CAGATATACG CGTTGACATT
241    GATTATTGAC TAGTTATTAA TAGTAATCAA TTACGGGGTC ATTAGTTCAT AGCCCATATA
301    TGGAGTTCGG CGTTACATAA CTTACGGTAA ATGGCCCGCC TGGCTGACCG CCCAACGACC
  
```

361 CCCGCCATT GACGTCAATA ATGACGTATG TTCCCATAGT AACGCCAATA GGGACTTTCC
421 ATTGACGTCA ATGGGTGGAG TATTTACGGT AAAGTGCCCA CTTGGCAGTA CATCAAGTGT
481 ATCATATGCC AAGTACGCCC CCTATTGACG TCAATGACGG TAAATGGCCC GCCTGGCATT
541 ATGCCCAGTA CATGACCTTA TGGGACTTTC CTAAGTGGCA GTACATCTAC GTATTAGTCA
601 TCGCTATTAC CATGGTGATG CGGTTTTGGC AGTACATCAA TGGGCGTGGA TAGCGGTTTG
661 ACTCACGGGG ATTTCCAAGT CTCCACCCCA TTGACGTCAA TGGGAGTTTG TTTTGGCACC
721 AAAATCAACG GGACTTTCCA AAATGTCGTA ACAACTCCGC CCCATTGACG CAAATGGGCG
781 GTAGGCGTGT ACGGTGGGAG GTCTATATAA GCAGAGCTCT CTGGCTAACT AGAGAACCCA
841 CTGCTTACTG GCTTATCGAA ATTAATACGA CTCACTATAG GGAGACCCAA GCTGGCTAGC
901 GTTTAAACTT AAGCTTGCCA CCATGTACCC ATACGATGTT CCAGATTACG CTGGTACCGA
961 GCTCGGATCC GAATTCTGCA GATATCCAGC ACAGTGGCGG CCGCTCGAGT CTAGAGGGCC
1021 CGTTTAAACC CGCTGATCAG CCTCGACTGT GCCTTCTAGT TGCCAGCCAT CTGTTGTTTG
1081 CCCCTCCCC GTGCCTTCCT TGACCCTGGA AGGTGCCACT CCCACTGTCC TTTCCTAATA
1141 AAATGAGGAA ATTGCATCGC ATTGTCTGAG TAGGTGTCAT TCTATTCTGG GGGGTGGGT
1201 GGGGCAGGAC AGCAAGGGGG AGGATTGGGA AGACAATAGC AGGCATGCTG GGGATGCGGT
1261 GGGCTCTATG GCTTCTGAGG CGGAAAGAAC CAGCTGGGGC TCTAGGGGGT ATCCCCACGC
1321 GCCCTGTAGC GCGCATTAAT GCGCGCGGGG TGTGGTGGTT ACGCGCAGCG TGACCGCTAC
1381 ACTTGCCAGC GCCCTAGCGC CCGCTCCTTT CGCTTCTTTC CCTTCCTTTC TCGCCACGTT
1441 CGCCGGCTTT CCCCGTCAAG CTCTAAATCG GGGGCTCCCT TTAGGGTTCC GATTAGTGC
1501 TTTACGGCAC CTCGACCCCA AAAAATTGA TTAGGGTGAT GGTTACGTA GTGGGCCATC
1561 GCCCTGATAG ACGGTTTTTC GCCCTTTGAC GTTGGAGTCC ACGTTCCTTA ATAGTGGACT
1621 CTTGTTCCAA ACTGGAACAA CACTCAACCC TATCTCGGTC TATTCTTTTG ATTTATAAGG
1681 GATTTTGCCG ATTTCGGCCT ATTGGTTAAA AAATGAGCTG ATTTAACAAA AATTAAACGC
1741 GAATTAATTC TGTGGAATGT GTGTCAGTTA GGGTGTGGAA AGTCCCCAGG CTCCCCAGCA
1801 GGCAGAAGTA TGCAAAGCAT GCATCTCAAT TAGTCAGCAA CCAGGTGTGG AAAGTCCCCA
1861 GGCTCCCCAG CAGGCAGAAG TATGCAAAGC ATGCATCTCA ATTAGTCAGC AACCATAGTC
1921 CCGCCCCTAA CTCCGCCCAT CCCGCCCTA ACTCCGCCCA GTTCCGCCCA TTCTCCGCC
1981 CATGGCTGAC TAATTTTTTT TATTTATGCA GAGGCCGAGG CCGCCTCTGC CTCTGAGCTA
2041 TTCCAGAAGT AGTGAGGAGG CTTTTTTGGA GGCCTAGGCT TTTGCAAAA GCTCCCGGGA
2101 GCTTGATATAT CCATTTTCGG ATCTGATCAA GAGACAGGAT GAGGATCGTT TCGCATGATT
2161 GAACAAGATG GATTGCACGC AGGTTCTCCG GCCGCTGGG TGGAGAGGCT ATTCGGCTAT
2221 GACTGGGCAC AACAGACAAT CGGCTGCTCT GATGCCGCCG TGTCCGGCT GTCAGCGCAG
2281 GGGCGCCCGG TTCTTTTTGT CAAGACCGAC CTGTCCGGTG CCCTGAATGA ACTGCAGGAC
2341 GAGGCAGCGC GGCTATCGTG GCTGGCCACG ACGGGCGTTC CTGCGCAGC TGTGCTCGAC
2401 GTTGTCACTG AAGCGGGAAG GGACTGGCTG CTATTGGGCG AAGTGCCGGG GCAGGATCTC
2461 CTGTCATCTC ACCTTGCTCC TGCCGAGAAA GTATCCATCA TGGCTGATGC AATGCGGCGG
2521 CTGCATACGC TTGATCCGGC TACCTGCCCA TTCGACCACC AAGCGAAACA TCGCATCGAG
2581 CGAGCACGTA CTCGGATGGA AGCCGGTCTT GTCGATCAGG ATGATCTGGA CGAAGAGCAT
2641 CAGGGGCTCG CGCCAGCCGA ACTGTTGCCG AGGCTCAAGG CGCGCATGCC CGACGGCGAG
2701 GATCTCGTCG TGACCCATGG CGATGCCTGC TTGCCGAATA TCATGGTGGA AAATGGCCGC

2761 TTTTCTGGAT TCATCGACTG TGGCCGGCTG GGTGTGGCGG ACCGCTATCA GGACATAGCG
2821 TTGGCTACCC GTGATATTGC TGAAGAGCTT GCGGCGGAAT GGGCTGACCG CTTCCTCGTG
2881 CTTTACGGTA TCGCCGCTCC CGATTTCGAG CGCATCGCCT TCTATCGCCT TCTTGACGAG
2941 TTCTTCTGAG CGGGACTCTG GGGTTCGAAA TGACCGACCA AGCGACGCCC AACCTGCCAT
3001 CACGAGATTT CGATTCCACC GCCGCCTTCT ATGAAAAGTT GGGCTTCGGA ATCGTTTTCC
3061 GGGACGCCGG CTGGATGATC CTCCAGCGCG GGGATCTCAT GCTGGAGTTC TTCGCCACC
3121 CCAACTTGTT TATTGCAGCT TATAATGGTT ACAAATAAAG CAATAGCATC ACAAATTTCA
3181 CAAATAAAGC ATTTTTTTCA CTGCATTCTA GTTGTGGTTT GTCCAACTC ATCAATGTAT
3241 CTTATCATGT CTGTATACCG TCGACCTCTA GCTAGAGCTT GGCCTAATCA TGGTCATAGC
3301 TGTTTCCTGT GTGAAATTGT TATCCGCTCA CAATTCCACA CAACATACGA GCCGGAAGCA
3361 TAAAGTGTA AGCCTGGGGT GCCTAATGAG TGAGCTAACT CACATTAATT GCGTTGCGCT
3421 CACTGCCCCG TTTCCAGTCG GGAAACCTGT CGTGCCAGCT GCATTAATGA ATCGGCCAAC
3481 GCGCGGGGAG AGGCGGTTTG CGTATTGGGC GCTCTTCCGC TTCCTCGCTC ACTGACTCGC
3541 TGCGCTCGGT CGTTCGGCTG CGGCGAGCGG TATCAGCTCA CTCAAAAGCG GTAATACGGT
3601 TATCCACAGA ATCAGGGGAT AACGCAGGAA AGAACATGTG AGCAAAAGGC CAGCAAAAGG
3661 CCAGGAACCG TAAAAAGGCC GCGTTGCTGG CGTTTTTCCA TAGGCTCCGC CCCCTGACG
3721 AGCATCACAA AAATCGACGC TCAAGTCAGA GGTGGCGAAA CCCGACAGGA CTATAAAGAT
3781 ACCAGGCGTT TCCCCCTGGA AGCTCCCTCG TGCGCTCTCC TGTTCGACC CTGCCGCTTA
3841 CCGGATACCT GTCCGCCTTT CTCCCTTCGG GAAGCGTGGC GCTTTCTCAT AGCTCACGCT
3901 GTAGGTATCT CAGTTCGGTG TAGGTCGTTT GCTCCAAGCT GGGCTGTGTG CACGAACCCC
3961 CCGTTCAGCC CGACCGCTGC GCCTTATCCG GTAACATATCG TCTTGAGTCC AACC CGGTAA
4021 GACACGACTT ATCGCCACTG GCAGCAGCCA CTGGTAACAG GATTAGCAGA GCGAGGTATG
4081 TAGGCGGTGC TACAGAGTTC TTGAAGTGGT GGCCTAACTA CGGCTACACT AGAAGAACAG
4141 TATTTGGTAT CTGCGCTCTG CTGAAGCCAG TTACCTTCGG AAAAAGAGTT GGTAGCTCTT
4201 GATCCGGCAA ACAAACCACC GCTGGTAGCG GTGGTTTTTT TGTTCGCAAG CAGCAGATTA
4261 CGCGCAGAAA AAAAGGATCT CAAGAAGATC CTTTGATCTT TTCTACGGGG TCTGACGCTC
4321 AGTGGAACGA AAATCAGCT TAAGGGATTT TGGTCATGAG ATTATCAAAA AGGATCTTCA
4381 CCTAGATCCT TTAAATTA AAATGAAGTT TTAAATCAAT CTAAAGTATA TATGAGTAAA
4441 CTTGGTCTGA CAGTTACCAA TGCTTAATCA GTGAGGCACC TATCTCAGCG ATCTGTCTAT
4501 TTCGTTTCAT CATAGTTGCC TGAATCCCG TCGTGTAGAT AACTACGATA CGGGAGGGCT
4561 TACCATCTGG CCCAGTGCT GCAATGATAC CGCGAGACCC ACGCTACCG GCTCCAGATT
4621 TATCAGCAAT AAACCAGCCA GCCGGAAGGG CCGAGCGCAG AAGTGGTCCT GCAACTTTAT
4681 CCGCTCCAT CCAGTCTATT AATTGTTGCC GGGAAGCTAG AGTAAGTAGT TCGCCAGTTA
4741 ATAGTTTTCG CAACGTTGTT GCCATTGCTA CAGGCATCGT GGTGTCACGC TCGTCGTTTG
4801 GTATGGCTTC ATTCAGCTCC GGTTCCTAAC GATCAAGGCG AGTTACATGA TCCCCATGT
4861 TGTGCAAAAA AGCGGTTAGC TCCTTCGGTC CTCCGATCGT TGTCAGAAAGT AAGTTGGCCG
4921 CAGTGTTATC ACTCATGGTT ATGGCAGCAC TGCATAATTC TCTTACTGTC ATGCCATCCG
4981 TAAGATGCTT TTCTGTGACT GGTGAGTACT CAACCAAGTC ATTCTGAGAA TAGTGTATGC
5041 GCGGACCGAG TTGCTCTTGC CCGGCGTCAA TACGGGATAA TACCGCGCCA CATAGCAGAA
5101 CTTTAAAAGT GCTCATCATT GGAAAACGTT CTTCGGGGCG AAAACTCTCA AGGATCTTAC

5161	CGCTGTTGAG	ATCCAGTTCG	ATGTAACCCA	CTCGTGCACC	CAACTGATCT	TCAGCATCTT
5221	TTACTTTCAC	CAGCGTTTCT	GGGTGAGCAA	AAACAGGAAG	GCAAAATGCC	GCAAAAAAGG
5281	GAATAAGGGC	GACACGGAAA	TGTTGAATAC	TCATACTCTT	CCTTTTCAA	TATTATTGAA
5341	GCATTTATCA	GGGTTATTGT	CTCATGAGCG	GATACATATT	TGAATGTATT	TAGAAAAATA
5401	AACAAATAGG	GGTCCGCGC	ACATTTCGCC	GAAAAGTGCC	ACCTGACGTC	