

## Specifications:

|                |                         |
|----------------|-------------------------|
| Gene:          | HCoV-OC43 Spike Protein |
| Accession:     | YP_009555241.1          |
| Insert size:   | 4075bp                  |
| Concentration: | 10µg at 0.2µg/µL        |

## Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

## Preparation and Storage

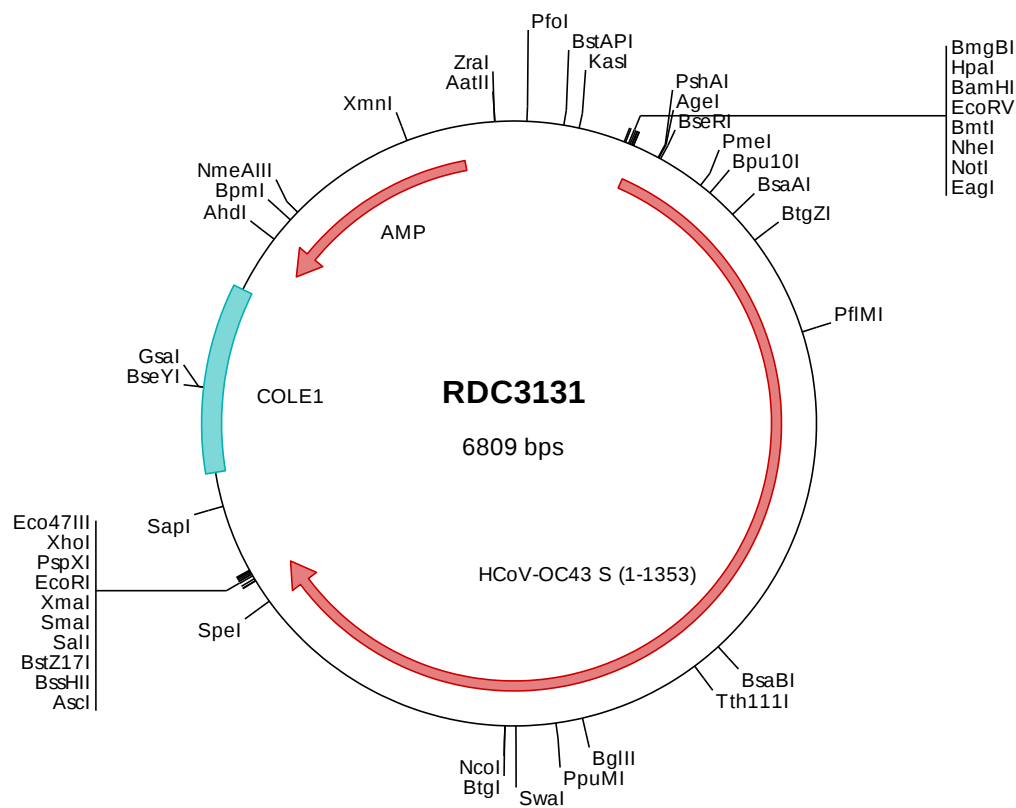
|             |                                                                     |
|-------------|---------------------------------------------------------------------|
| Formulation | cDNA is provided in 10 mM Tris-Cl, pH 8.5                           |
| Shipping    | Ships at ambient temperature                                        |
| Stability   | 1 year from date of receipt when stored at -20°C to -80°C           |
| Storage     | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. |

## HCoV-OC43 Spike Protein cDNA Plasmid

EYW02\_gp4 spike surface glycoprotein [ *Human coronavirus OC43* ]

### Summary:

Coronaviruses (CoVs) are a large group of viruses infecting human and animals and produce a variety of diseases including respiratory, enteric, renal, and neurological diseases. The spike (S) glycoprotein of HCoV-OC43 contains two subunits, S1 and S2, mediating attachment with host receptor and membrane fusion, respectively. The spike protein of HCoV-OC43 binds to 9-O-acetyl-sialoglycans as well as Neu5Ac on the cell surface.



## > RDC3131 Plasmid DNA Sequence

```

1   tcgcgcgcttt cggatgatgac ggtgaaaacc tctgacacat gcagctcccg gagacgggtca cagcttgctct gtaagcggat gccgggagca gacaagcccg
101  tcaggggcgcg tcagcgggttg ttggcgggtg tccgggctgg cggcatcaga gcagattgta ctgagagtgcc accatatgcg gtgtgaaata
201  ccgcacacgat gcgtaaggag aaaataccgc atcaggcgcc caggctgcgc aactgttggtg aagggcgatc ggtgcgggcc tcttcgctat
301  tacgcccagct ggcgaaaagg ggaatgtctg caaggcgatt cgcgtagcgc atgttggtgga agcccgagggt tttcccgatc acgacgttgt
401  ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggccgcccacc atgtttttga taacttttaac ttccttaccac acggcttttg ctgttatagg
501  agattttaag tgaacttcag ataattattaa tgataaagac accggtccctc ctctataaag taactgatact gttgatgtta ctaatggtct ggggtacttat
601  tatgttttag atcgtgtgta cttaaatact acgtgttttc ttaattggtta ttacctactc tcaggttcca catactgtaa tatggcactg aagggaagtg
701  tactattagg cagctatggt tttaaccacc catttccttc tgattttatt aatggttatt ttgctaaggc aaaaaatacc aaggttatta aagatcgtgt
801  aatgtatagt gaggctccctg ctataactat aggttagtact tttgtaaata catctctatg tgtggtagta caaccacgta caatcaattc aacacaggat
901  ggtgataata aattacaagg tcttttagag gtctctgttt gccagtaata tatgtgcgag taccacaaaa cgatttgta ccttaacctg ggtaatcatc
1001 gcaaaagact atggcatttg gatcacgggt ttgtttctcg ttatatataag cgttaatttca catatgatgt taattgtatt ttcattttta
1101 tcaagaagggt ggtacttttt atgcatatct tacagacact ggtgtgtgta aatgtttttt ctaagtgttt gtttaatgtt tatttaggca tggcgctttc acactattat
1201 gtcatgcttc tgaattgtaa tagtaagctt acttttagaag tttgggttgc aatcctcact ctagacaact atttactcgc tttcaatcaa gatggtatta
1301 ttttaaatgc ttgtgattgt atgagtgtat ttatgagtga gattaaagtg aaaaacaaat accctactgt tttaatacaa gtttggtaac taacacggta
1401 cactgttccag ccaatgcgag atgtttaccg acgtaaacct aatcttccca atgtcaatat agaagcttgg cttaatgata agtcggtgcc ctctcatta
1501 aattgggaac gtaagacatt ttcaaattgt aattttaata tgagcagcct gatgtctttt attcaggcag actcatttac tttgtaataa atgtatgctg
1601 ctaagataga taagtattgt ttctcagca taactataga taactatgta ttaccctaat gcagggaaggt tgagctacaa ttgggttaatt tgggtctatt
1701 gcagctaatc aactatagaa ttgatactac tgcaacaagt ttgatactac gattctgttt ttaagcctcg acctgcaggt gttcttacta atcatgatgt agtttagtga
1801 acttgggaata agagatttgg ttatatagaa aattgtatga ttctgtgtta ggttagtggt cttgtaaaaa taatggtata ggcaactgtc ctgcaggtaac
1901 tcaaaagctcc aaaaatttgc tgcctgtgta aattgaatgg ttctgtgtta ggttagtggt cttgtaaaaa taatggtata ggcaactgtc ctgcaggtaac
2001 taattatttta actgtgtgata atttgtgcac tctgtatcct attacattta caggtactcta taagtgcgcc taagtgcgcc caaactaaat cttagtggtg
2101 cactgttcgg gtctgtgtgt tttgtctaat ttatttttgc tagtgttaat agtgggtctta cttgttctac tgattttacaa ggaactgtgc ctgcaggtaac
2201 aaggagacaa gtgttaattt tttgtctaat ttatttttgc tagtgttaat agtgggtctta cttgttctac tgattttacaa ggaactgtgc ctgcaggtaac
2301 tcttgggtgtt tgtgttaatt atgacctcta tgggtatttta ggccaaggca ttttttttga ggttaatgcg acttattata atagtgtgca
2401 tatgtattta atgttaactc atcgggtttt agagactttt ttaagcctcg acctgcaggt gttcttacta atcatgatgt agtttagtga
2501 acgctaaactc ttcggaacca gcaattgctat ttoggaatat taaatgcac actgctattt ctgttccaac atgtgatctc acagttaggt atgttagtga
2601 tgatagttat cttggtgtgt ttgtcaatgc ttataatagt actgctattt taatttttag ccaatttactg ttatttcaaa aagctctctc
2701 tctaataaca gacgaagtcg gtagcggatt accactgtgt tatagtgtaa atggtggagt ttatttcaaa aagctctctc
2801 taggtgtgtt gtgtgaattt cgaatacctt cagagttttac tatagtgtaa atggtggagt ttatttcaaa aagctctctc
2901 tctattttgtc tgtgtgtatt atgcagcatg taaatcacag ttggttgtaat atggttagttt ctgtgataac attaatgcac tactcacaga
3001 ctacttgaca ctacacagtt ccaagtagct aatagtttta tgaatgtgtg tctcttagc actaagctta aagatggcgt agatgtagct
3101 tcaatttttc cctgttatta ggtgtgtctag gcagcgaaat tagttaaagt tccagtagat ctgctataga ggatttact tttgataaag taaagttaac
3201 tgatgtcgtt tttgttgagg cttataataa ttgtacagga ggtgcgcgaa ttagggaactc cacttgtgtg caaagttata aaggttatac
3301 ccactgctct cagaaaaatc gatcagtgga tacaactttg ggtgcacatc agtcaaaaatc aaaagcttat tgctaatgca ttttaacaaat
3401 taaatgttca gtatgcattt aatgggcttg gtgtccacct tgccttagtt aaaattcgaag ctgtgtgttaa tgcaaatgct gaagctctta
3501 tattcaaggaa ggtgttcgat ccaactaatc aagtgtctct ttacaagaaa tcttatctag acttgatgct ttgaaagcgt agactocagt
3601 tcttaatatag ttgtgtctat taattgtctc tatgtttctc aacagcttag tgattctaca ctggttaaaat ttagtgacag acaagctatg
3701 gtctttacgc tcttaatgct taaatttctg ttgtaattgt aatcatatta tatcatatgt gcagaatgct ccatatggtt gttatttttt
3801 caaaagcaca tcatatagga taaatttctg ttgtaattgt aatcatatta tatcatatgt gcagaatgct ccatatggtt gttatttttt
3901 taatgtccctc ctaagtagtt ccaagcgagg gttgtctctg tctgtgtcat ttgtgtgtat agaggatatag ctcttaagag ttgttttttt
4001 ataatacttg gatgtacact ggtagtgtgt actactaccc cctgattttta aggaagagtt ggatcaatgg tttaaaaaatc
4101 agcgcogtat gtaatgtctg acaactcaat cctgattttta aggttgaatt gaataggtta caggaggcga taaaagtctt taaatcagagc
4201 ttgtcaacttg attataataa tgttcaactc taagtattatg taaatggcc ttggtatgta tggcttttaa tctgccttgc ttggttagct
4301 tcaaggacat tggatcatat gttggactag gtgggactag tttgttttaa aatgtgtgtg gttgtgtgta tgattatact ggataccagg
4401 catatgctgt ttgacaggat cagtatactc tagagtgcac acccggggaa tctctcagc gctcgtctct agcttggcgt aatcatggtc
4501 cctgtgtgaa attgttatcc gctcacaatt ccacacaaca tacgagccgg aagcataaag tgtaaacctt ggggtgccta atgagttagc
4601 taattgcgtt gcgctcactg cccgcttttc cctgtcgtgc cagctgcatt aatgaatcgg ggggtgccta ccaacgcgcg
4701 tgggcgctct tccgcttctc cgtcactgag ctcgctgcgc ggtctgcggc agcggtatca gggagaggcg gggagaggcg
4801 acagaatcag gggataacgc aggaagaac atgtgagcaa aaggccagca aaaggccagg aagcggtaac agcggtaac
4901 tccgcccccc tgacgagcat cagcaaaaatc gacgctcaag aagcggtaac aagcggtaac aagcggtaac aagcggtaac
5001 cctcgtgcgc tctcctgttc gcttacggga gcttacggga gcttacggga gcttacggga gcttacggga gcttacggga
5101 tatctcagtt cgggtgaggt cgttcgctcc aagctgggct ggtgtgcaga ggtgtgcaga ggtgtgcaga ggtgtgcaga
5201 agtccaaacc ggttaagcac gacttatcgc cactggcagc agccactggt atgagattat atgagattat atgagattat
5301 ggtgtggcct aactacggct acactagaag gacagtattt ggtatctgcg ggtatctgcg ggtatctgcg ggtatctgcg
5401 ggcaaacaaa ccaccgctgg tagcgtggtt tttttgttt gcaagcagca gatttggctg gatttggctg gatttggctg
5501 cggtcagttg cgctcagttg aacgaaaaat gtaaaccttg gttatctgag ttgtacagtt ttgtacagtt
5601 aagtttttaa tcaatctaaa gtatatatga tagataacta cgatacggga aggggcccag cgcagaagtg
5701 tcatccatag ttgctgact ccccgctcgt gaccagccgg aggggcccag ttgttgccat atgttgccat
5801 caccggctcc agatttatca gcaataaacc agccagccgg aagggcccag ttgttgccat atgttgccat atgttgccat
5901 ttgcgggaaa gctagagttaa gtagttcgcc catgatcccc catgttgtgc aattctctta
6001 gcttcattca gctcgggttc ccaacgatca aggcagttta tgggttatggc agcactgcat cctgacggcg
6101 gaagtaagtt ggcgcgagtg ttaactactc tatcagggcg cgaatagttc tctcaaggat tctcaaggat
6201 gtactcaacc aagtcaattc tgaatagtgc aggttctctc gggcgaaaaa atgttgccat atgttgccat
6301 aaagtgtcca tcatgtgaaa acgttctctc tttctgggtg atgcaaaaat atgttgccat atgttgccat
6401 gatcttcage atcttttact ttaccacagg tttctgggtg tttcaagcat tatcagttat aaccattatt
6501 aatactcata ctcttccctt ttcaattata tccccgaaaa gtgcccactg acgtctaaga
6601 ataggggttc cgtgcacatt tccccgaaaa gtgcccactg acgtctaaga
6701 ccttcgcact

```

## > RDC3131 Translated Insert Sequence

```

1  mflillislpl tafavigdlk ctsdnindkd tgpppistdt vdvtnlgltg yvlrdvylnt tlfingyypt sgstyrnmal kgsvllsrlw fkppflsdfi
101 ngifakvknt kvikdrvmys efpaitigst fvntsysvvv qprtinstqd gdnklqglle vsvcqynmce ypqatichpnl gnhrkelwhl dtgvvsclyk
201 rnftydvnad ylyfhyqeg gtfyayftdt gvvtkflfnv ylgmalshyy vmpltcnsl tleywvtpit srqyllafnq dgiifnavdc msdfmseikc
301 ktqsiapptg vyelngytvq piadvyrrkp nlpncnieaw lndksvpspl nwerktfsnc nfnmsslmsf iqadsftcnn idaakiygmcs fssitidkfa
401 ipngrkvdld lgnglylqsf nyridttats cqllynlpaa nvsvsrfnps twnkrfgfie dsvfkprpag vltndhvvya qhcfkapknf cpcklngscv
501 gsgpgkngqi gtcpagtnyl tcdnlctpdp itftgtykcp qtkslvgige hcsglavksd ycggnscctr pqafllwsad sclqgdkcni fanfilhdvn
601 sgltcstdlq kantdiilgv cvnydlygil gggifvevna tyynswqnl ydsngnlygf rdyitnrtfm irscysgrvs aafhanssep allfrnikcn
701 yvfnnsltrq lqpinyfdsy lgcvvayns taisvqtcdl tvsgsgycvdy sknrssrgai ttgyrftnfe pftvnsvnds lepvvgglyei qipseftign
801 mvefigtssp kvtidcaafv cgdyaaacksq lveygsfcdn inailtevne lldttqlqva nslmngvtls tkldkgvnnf vddinfspvl gclgsecska
901 ssrsaiedll fdkvklsdvg fveaynnctg gaeirdlicv qsykgikvlp pllsenqisg ytlaatsasl fppwttaaagv pfylnvgyri nglgvtmdvl
1001 sqnqkiana fnnalyaiqe gfdatnsalv kiqavvnana ealnnllqql snrfgaiss lqeilsrla leaeaqidrl ingrltalna yvsqqldst
1101 lvkfssaaqam ekvnecvksq ssrinfcgng nhiislvgna pyglyfihfs yvptkyvtar vspglciagd rgiapksgyf vnnvntwmyt gsgyyyypepi
1201 tennvvvmst cavnytkapy vmlntsipnl pdfkeeldqw fknqtsvapt lsldyinvtf ldlqvemnr1 qeakvlnqs ylnlkdigty eyyvkwpywy
1301 wlliclagva mlvlfficc ctgcgtscfk kcgccoddyt gyqelvikts hdd

```