To everyone:

To speed up the control of the new coronavirus(2019-nCoV/Sars-CoV-2) outbreak, we provide the following plasmids free of charge, as long as the article is published, it is noted that it was given by Shanghai ShineGene.However, shipping charges are required.

ShineGene
02-20-2020

**1. 2019-nCoV N Protein**

pET-28a（NdeI/XhoI）KanR.E.coli. expression system

48.8Kda,pI10.0
MGSSHHHHHHSSGLVPRGSHMSDNGPQNQRNAPRITFGGPSDSTGSNQNGERSGARSKQ
RRPQGLPNNTASWFTALTQHGKEDLKFPRGQGVPINTNSSPDDQIGYYRRATRRIRGGDG
KMKDLSPRWYFYYLGTGPEAGLPYGANKDGIIWVATEGALNTPKDHIGTRNPANNAAIVL
QLPQGTTLPKGFYAEGSRGGSQASSRSSSRSRNSSRNSTPGSSRGTSPARMAGNGGDAAL
ALLLLDRLNQLESKMSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKAYNVTQAFGRR
GPEQTQGNFGDQELIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYTGAI
KLDDKDPNFKDQVILLNKHIDAYKTFPPTEPKKDKKKKADETQALPQRQKKQQTVTLLPA
ADLDDFSKQLQQSMSSADSTQALEHHHHHH*

Optimized sequence for E.coli.:
CATATGAGCGATAATGGCCCGCAGAATCAGCGTAATGCACCGCGTATTACCTTTGGCGG
CCCGAGTGATAGTACCGGTAGTAATCAGAATGGTGAACGCAGTGGTGCACGTAGCAAA
CAGCGCCGCCCGCAGGGCCTGCCTAATAATACCGCCAGTTGGTTTACCGCCCTGACCC
AGCATGGCAAAGAAGATCTGAAATTTCCGCGCGGTCAGGGCGTGCCGATTAATACCAA
TAGCAGTCCGGATGATCAGATTGGCTATTATCGCCGCGCCACCCGCCGCATTCGCGGTG
GTGACGGTAAAATGAAAGATCTGAGCCCGCGTTGGTATTTTTATTATCTGGGCACCGGC
CCGGAAGCCGGTCTGCCTTATGGTGCAAATAAGGATGGTATTATTTGGGTGGCAACCGA
AGGTGCACTGAATACCCCGAAAGATCATATTGGTACCCGTAATCCGGCAAATAATGCAG
CAATTGTTCTGCAGCTGCCGCAGGGTACCACCCTGCCGAAAGGCTTTTATGCCGAAGG
CAGTCGCGGCGGCAGTCAGGCTAGTAGCCGTAGCAGTAGCCGTAGTCGCAATAGCAGT
CGCAATAGTACCCCGGGCAGCAGCCGTGGCACCAGTCCTGCTCGTATGGCAGGTAATG
GTGGTGACGCCGCCCTGGCACTGCTGCTGCTGGATCGCCTGAATCAGCTGGAAAGCAA
AATGAGTGGTAAAGGCCAGCAGCAGCAGGGCCAGACCGTGACCAAAAAATCTGCAGC
AGAAGCAAGCAAAAAACCGCGCCAGAAACGTACCGCAACCAAAGCATATAATGTGAC
CCAGGCCTTTGGTCGTCGTGGTCCGGAACAGACCCAGGGCAATTTTGGCGATCAGGAA
CTGATTCGCCAGGGCACCGATTATAAACATTGGCCGCAGATTGCCCAGTTTGCCCCGAG
CGCAAGCGCATTTTTCGGCATGAGTCGCATTGGCATGGAAGTTACCCCGAGCGGTACCT
GGCTGACCTATACCGGTGCAATTAAGCTGGATGATAAAGATCCGAATTTTAAAGATCAG
GTTATTCTGCTGAACAAACATATTGATGCCTATAAAACCTTCCCGCCGACCGAACCGAA
AAAAGATAAAAAGAAAAAGGCAGATGAGACCCAGGCACTGCCGCAGCGTCAGAAAA

AACAGCAGACCGTGACACTGCTGCCGGCAGCCGATCTGGATGATTTTAGTAAACAGCT
GCAGCAGAGTATGAGTAGCGCAGATAGTACCCAGGCACTCGAG

**2. 2019-nCoV S protein**

pCDNA3.1（NheI/NotI）,AmpR, mammalian expression system
141Kda，pI6.6
MFVFLVLLPLVSSQCVNLTTRTQLPPAYTNSFTRGVYYPDKVFRSSVLHSTQDLFLPFFSNV
TWFHAIHVSGTNGTKRFDNPVLPFNDGVYFASTEKSNIIRGWIFGTTLDSKTQSLLIVNNAT
NVVIKVCEFQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFLMDLEGKQ
GNFKNLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTLLALHR
SYLTPGDSSSGWTAGAAAYYVGYLQPRTFLLKYNENGTITDAVDCALDPLSETKCTLKSFT
VEKGIYQTSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLY
NSASFSTFKCYGVSPTKLNDLCFTNVYADSFVIRGDEVRQIAPGQTGKIADYNYKLPDDFT
GCVIAWNSNNLDSKVGGNYNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYF
PLQSYGFQPTNGVGYQPYRVVVLSFELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTG
VLTESNKKFLPFQQFGRDIADTTDAVRDPQTLEILDITPCSFGGVSVITPGTNTSNQVAVLYQ
DVNCTEVPVAIHADQLTPTWRVYSTGSNVFQTRAGCLIGAEHVNNSYECDIPIGAGICASY
QTQTNSPRRARSVASQSIIAYTMSLGAENSVAYSNNSIAIPTNFTISVTTEILPVSMTKTSVD
CTMYICGDSTECSNLLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFG
GFNFSQILPDPSKPSKRSFIEDLLFNKVTLADAGFIKQYGDCLGDIAARDLICAQKFNGLTV
LPPLLTDEMIAQYTSALLAGTITSGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQ
KLIANQFNSAIGKIQDSLSSTASALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILS
RLDKVEAEVQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFC
GKGYHLMSFPQSAPHGVVFLHVTYVPAQEKNFTTAPAICHDGKAHFPREGVFVSNGTHW
FVTQRNFYEPQIITTDNTFVSGNCDVVIGIVNNTVYDPLQPELDSFKEELDKYFKNHTSPD
VDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYIWLGFIAGLI
AIVMVTIMLCCMTSCCSCLKGCCSCGSCCKFDEDDSEPVLKGVKLHYT

unoptimized sequences:

GCTAGCGCCACCATGTTTGTTTTTCTTGTTTTATTGCCACTAGTCTCTAGTCAGTGTGTT
AATCTTACAACCAGAACTCAATTACCCCCTGCATACACTAATTCTTTCACACGTGGTGTT
TATTACCCTGACAAAGTTTTCAGATCCTCAGTTTTACATTCAACTCAGGACTTGTTCTTA
CCTTTCTTTTCCAATGTTACTTGGTTCCATGCTATACATGTCTCTGGGACCAATGGTACT
AAGAGGTTTGATAACCCTGTCCTACCATTTAATGATGGTGTTTATTTTGCTTCCACTGAG
AAGTCTAACATAATAAGAGGCTGGATTTTTGGTACTACTTTAGATTCGAAGACCCAGTC
CCTACTTATTGTTAATAACGCTACTAATGTTGTTATTAAAGTCTGTGAATTTCAATTTTGT
AATGATCCATTTTTGGGTGTTTATTACCACAAAAACAACAAAAGTTGGATGGAAAGTG
AGTTCAGAGTTTATTCTAGTGCGAATAATTGCACTTTTGAATATGTCTCTCAGCCTTTTC
TTATGGACCTTGAAGGAAAACAGGGTAATTTCAAAAATCTTAGGGAATTTGTGTTTAAG

AATATTGATGGTTATTTTAAAATATATTCTAAGCACACGCCTATTAATTTAGTGCGTGATC
TCCCTCAGGGTTTTTCGGCTTTAGAACCATTGGTAGATTTGCCAATAGGTATTAACATCA
CTAGGTTTCAAACTTTACTTGCTTTACATAGAAGTTATTTGACTCCTGGTGATTCTTCTT
CAGGTTGGACAGCTGGTGCTGCAGCTTATTATGTGGGTTATCTTCAACCTAGGACTTTT
CTATTAAAATATAATGAAAATGGAACCATTACAGATGCTGTAGACTGTGCACTTGACCCT
CTCTCAGAAACAAAGTGTACGTTGAAATCCTTCACTGTAGAAAAAGGAATCTATCAAA
CTTCTAACTTTAGAGTCCAACCAACAGAATCTATTGTTAGATTTCCTAATATTACAAACT
TGTGCCCTTTTGGTGAAGTTTTTAACGCCACCAGATTTGCATCTGTTTATGCTTGGAAC
AGGAAGAGAATCAGCAACTGTGTTGCTGATTATTCTGTCCTATATAATTCCGCATCATTT
TCCACTTTTAAGTGTTATGGAGTGTCTCCTACTAAATTAAATGATCTCTGCTTTACTAATG
TCTATGCAGATTCATTTGTAATTAGAGGTGATGAAGTCAGACAAATCGCTCCAGGGCAA
ACTGGAAAGATTGCTGATTATAATTATAAATTACCAGATGATTTTACAGGCTGCGTTATA
GCTTGGAATTCTAACAATCTTGATTCTAAGGTTGGTGGTAATTATAATTACCTGTATAGAT
TGTTTAGGAAGTCTAATCTCAAACCTTTTGAGAGAGATATTTCAACTGAAATCTATCAG
GCCGGTAGCACACCTTGTAATGGTGTTGAAGGTTTTAATTGTTACTTTCCTTTACAATCA
TATGGTTTCCAACCCACTAATGGTGTTGGTTACCAACCATACAGAGTAGTAGTACTTTCT
TTTGAACTTCTACATGCACCAGCAACTGTTTGTGGACCTAAAAAGTCTACTAATTTGGT
TAAAAACAAATGTGTCAATTTCAACTTCAATGGTTTAACAGGCACAGGTGTTCTTACTG
AGTCTAACAAAAAGTTTCTGCCTTTCCAACAATTTGGCAGAGACATTGCTGACACTACT
GATGCTGTCCGTGATCCACAGACACTTGAGATTCTTGACATTACACCATGTTCTTTTGG
TGGTGTCAGTGTTATAACACCAGGAACAAATACTTCTAACCAGGTTGCTGTTCTTTATC
AGGATGTTAACTGCACAGAAGTCCCTGTTGCTATTCATGCAGATCAACTTACTCCTACT
TGGCGTGTTTATTCTACAGGTTCTAATGTTTTTCAAACACGTGCAGGCTGTTTAATAGGG
GCTGAACATGTCAACAACTCATATGAGTGTGACATACCCATTGGTGCAGGTATATGCGC
TAGTTATCAGACTCAGACTAATTCTCCTCGGCGGGCACGTAGTGTAGCTAGTCAATCCA
TCATTGCCTACACTATGTCACTTGGTGCAGAAAATTCAGTTGCTTACTCTAATAACTCTA
TTGCCATACCCACAAATTTTACTATTAGTGTTACCACAGAAATTCTACCAGTGTCTATGA
CCAAGACATCAGTAGATTGTACAATGTACATTTGTGGTGATTCAACTGAATGCAGCAAT
CTTTTGTTGCAATATGGCAGTTTTTGTACACAATTAAACCGTGCTTTAACTGGAATAGCT
GTTGAACAAGACAAAAACACCCAAGAAGTTTTTGCACAAGTCAAACAAATTTACAAA
ACACCACCAATTAAAGATTTTGGTGGTTTTAATTTTTCACAAATATTACCAGATCCATCA
AAACCAAGCAAGAGGTCATTTATTGAAGATCTACTTTTCAACAAAGTGACACTTGCAG
ATGCTGGCTTCATCAAACAATATGGTGATTGCCTTGGTGATATTGCTGCTAGAGACCTCA
TTTGTGCACAAAAGTTTAACGGCCTTACTGTTTTGCCACCTTTGCTCACAGATGAAATG
ATTGCTCAATACACTTCTGCACTGTTAGCGGGTACAATCACTTCTGGTTGGACCTTTGG
TGCAGGTGCTGCATTACAAATACCATTTGCTATGCAAATGGCTTATAGGTTTAATGGTAT
TGGAGTTACACAGAATGTTCTCTATGAGAACCAAAAATTGATTGCCAACCAATTTAATA
GTGCTATTGGCAAAATTCAAGACTCACTTTCTTCCACAGCAAGTGCACTTGGAAAACT
TCAAGATGTGGTCAACCAAAATGCACAAGCTTTAAACACGCTTGTTAAACAACTTAGC
TCCAATTTTGGTGCAATTTCAAGTGTTTTAAATGATATCCTTTCACGTCTTGACAAAGTT
GAGGCTGAAGTGCAAATTGATAGGTTGATCACAGGCAGACTTCAAAGTTTGCAGACAT
ATGTGACTCAACAATTAATTAGAGCTGCAGAAATCAGAGCTTCTGCTAATCTTGCTGCT
ACTAAAATGTCAGAGTGTGTACTTGGACAATCAAAAAGAGTTGATTTTTGTGGAAAGG

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GCTATCATCTTATGTCCTTCCCTCAGTCAGCACCTCATGGTGTAGTCTTCTTGCATGTGA
CTTATGTCCCTGCACAAGAAAAGAACTTCACAACTGCTCCTGCCATTTGTCATGATGGA
AAAGCACACTTTCCTCGTGAAGGTGTCTTTGTTTCAAATGGCACACACTGGTTTGTAA
CACAAAGGAATTTTTATGAACCACAAATCATTACTACAGACAACACATTTGTGTCTGGT
AACTGTGATGTTGTAATAGGAATTGTCAACAACACAGTTTATGATCCTTTGCAACCTGA
ATTAGACTCATTCAAGGAGGAGTTAGATAAATATTTTAAGAATCATACATCACCAGATGT
TGATTTAGGTGACATCTCTGGCATTAATGCTTCAGTTGTAAACATTCAAAAAGAAATTG
ACCGCCTCAATGAGGTTGCCAAGAATTTAAATGAATCTCTCATCGATCTCCAAGAACTT
GGAAAGTATGAGCAGTATATAAAATGGCCATGGTACATTTGGCTAGGTTTTATAGCTGGC
TTGATTGCCATAGTAATGGTGACAATTATGCTTTGCTGTATGACCAGTTGCTGTAGTTGT
CTCAAGGGCTGTTGTTCTTGTGGATCCTGCTGCAAATTTGATGAAGACGACTCTGAGCC
AGTGCTCAAAGGAGTCAAATTACATTACACATAAGCGGCCGC

**3. homo ACE2 protein**

pTT5(AgeI/HindIII) ,AmpR, mammalian expression system

92.3Kda,pI5.7

TGQSTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENVQNMNNAGDKWSAFLK
EQSTLAQMYPLQEIQNLTVKLQLQALQQNGSSVLSEDKSKRLNTILNTMSTIYSTGKVCNP
DNPQECLLLEPGLNEIMANSLDYNERLWAWESWRSEVGKQLRPLYEEYVVLKNEMARAN
HYEDYGDYWRGDYEVNGVDGYDYSRGQLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAY
PSYISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGQKPNIDVTDAMVDQAWDAQRIFKEAE
KFFVSVGLPNMTQGFWENSMLTDPGNVQKAVCHPTAWDLGKGDFRILMCTKVTMDDFL
TAHHEMGHIQYDMAYAAQPFLLRNGANEGFHEAVGEIMSLSAATPKHLKSIGLLSPDFQE
DNETEINFLLKQALTIVGTLPFTYMLEKWRWMVFKGEIPKDQWMKKWWEMKREIVGVV
EPVPHDETYCDPASLFHVSNDYSFIRYYTRTLYQFQFQEALCQAAKHEGPLHKCDISNSTE
AGQKLFNMLRLGKSEPWTLALENVVGAKNMNVRPLLNYFEPLFTWLKDQNKNSFVGWS
TDWSPYADQSIKVRISLKSALGDKAYEWNDNEMYLFRSSVAYAMRQYFLKVKNQMILFG
EEDVRVANLKPRISFNFFVTAPKNVSDIIPRTEVEKAIRMSRSRINDAFRLNDNSLEFLGIQP
TLGPPNQPPVSPQPQPKPQPQPQPQPKPQPKPEPELAPQMLRELQETNAALQDVRELLRQQ
VKQITFLKNTVMECDACGHHHHHH-

Optimized sequence for Homo.:

accggtCAGAGCACCATCGAGGAGCAGGCCAAGACCTTCCTGGACAAGTTCAACCACGA
GGCCGAGGACCTGTTCTACCAGAGCAGCCTGGCCAGCTGGAACTACAACACCAACAT
CACCGAGGAGAACGTGCAGAACATGAACAACGCCGGCGACAAGTGGAGCGCCTTCCT
GAAGGAGCAGAGCACCCTGGCCCAGATGTACCCCCTGCAGGAGATCCAGAACCTGAC
CGTGAAGCTGCAGCTGCAGGCCCTGCAGCAGAACGGCAGCAGCGTGCTGAGCGAGG
ACAAGAGCAAGCGCCTGAACACCATCCTGAACACCATGAGCACCATCTACAGCACCG
GCAAGGTGTGCAACCCCGACAACCCCCAGGAGTGCCTGCTGCTGGAGCCCGGCCTGA
ACGAGATCATGGCCAACAGCCTGGACTACAACGAGCGCCTGTGGGCCTGGGAGAGCT
GGCGCAGCGAGGTGGGCAAGCAGCTGCGCCCCCTGTACGAGGAGTACGTGGTGCTGA

AGAACGAGATGGCCCGCGCCAACCACTACGAGGACTACGGCGACTACTGGCGCGGCG
ACTACGAGGTGAACGGCGTGGACGGCTACGACTACAGCCGCGGCCAGCTGATCGAGG
ACGTGGAGCACACCTTCGAGGAGATCAAGCCCCTGTACGAGCACCTGCACGCCTACGT
GCGCGCCAAGCTGATGAACGCCTACCCCAGCTACATCAGCCCCATCGGCTGCCTGCCC
GCCCACCTGCTGGGCGACATGTGGGGCCGCTTCTGGACCAACCTGTACAGCCTGACCG
TGCCCTTCGGCCAGAAGCCCAACATCGACGTGACCGACGCCATGGTGGACCAGGCCT
GGGACGCCCAGCGCATCTTCAAGGAGGCCGAGAAGTTCTTCGTGAGCGTGGGCCTGC
CCAACATGACCCAGGGCTTCTGGGAGAACAGCATGCTGACCGACCCCGGCAACGTGC
AGAAGGCCGTGTGCCACCCCACCGCCTGGGACCTGGGCAAGGGCGACTTCCGCATCC
TGATGTGCACCAAGGTGACCATGGACGACTTCCTGACCGCCCACCACGAGATGGGCCA
CATCCAGTACGACATGGCCTACGCCGCCCAGCCCTTCCTGCTGCGCAACGGCGCCAAC
GAGGGCTTCCACGAGGCCGTGGGCGAGATCATGAGCCTGAGCGCCGCCACCCCCAAG
CACCTGAAGAGCATCGGCCTGCTGAGCCCCGACTTCCAGGAGGACAACGAGACCGAG
ATCAACTTCCTGCTGAAGCAGGCCCTGACCATCGTGGGCACCCTGCCCTTCACCTACAT
GCTGGAGAAGTGGCGCTGGATGGTGTTCAAGGGCGAGATCCCCAAGGACCAGTGGAT
GAAGAAGTGGTGGGAGATGAAGCGCGAGATCGTGGGCGTGGTGGAGCCCGTGCCCCA
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ATCCGCTACTACACCCGCACCCTGTACCAGTTCCAGTTCCAGGAGGCCCTGTGCCAGG
CCGCCAAGCACGAGGGCCCCCTGCACAAGTGCGACATCAGCAACAGCACCGAGGCCG
GCCAGAAGCTGTTCAACATGCTGCGCCTGGGCAAGAGCGAGCCCTGGACCCTGGCCC
TGGAGAACGTGGTGGGCGCCAAGAACATGAACGTGCGCCCCCTGCTGAACTACTTCG
AGCCCCTGTTCACCTGGCTGAAGGACCAGAACAAGAACAGCTTCGTGGGCTGGAGCA
CCGACTGGAGCCCCTACGCCGACCAGAGCATCAAGGTGCGCATCAGCCTGAAGAGCG
CCCTGGGCGACAAGGCCTACGAGTGGAACGACAACGAGATGTACCTGTTCCGCAGCA
GCGTGGCCTACGCCATGCGCCAGTACTTCCTGAAGGTGAAGAACCAGATGATCCTGTT
CGGCGAGGAGGACGTGCGCGTGGCCAACCTGAAGCCCCGCATCAGCTTCAACTTCTTC
GTGACCGCCCCCAAGAACGTGAGCGACATCATCCCCCGCACCGAGGTGGAGAAGGCC
ATCCGCATGAGCCGCAGCCGCATCAACGACGCCTTCCGCCTGAACGACAACAGCCTGG
AGTTCCTGGGCATCCAGCCCACCCTGGGCCCCCCCAACCAGCCCCCCGTGAGCCCCCA
GCCCCAGCCCAAGCCCCAGCCCCAGCCCCAGCCCCAGCCCAAGCCCCAGCCCAAGCC
CGAGCCCGAGCTGGCCCCCCAGATGCTGCGCGAGCTGCAGGAGACCAACGCCGCCCT
GCAGGACGTGCGCGAGCTGCTGCGCCAGCAGGTGAAGCAGATCACCTTCCTGAAGAA
CACCGTGATGGAGTGCGACGCCTGCGGCCACCACCACCACCACCACtgaaagctt