

Recombinant 2019-nCoV 3CLpro Protein, His-tagged

Cat. No. 3CLpro-04C Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length 2019-nCoV 3CLpro, part of a large replicase polyprotein 1ab (S3264-Q3569), was expressed in E. coli cells with an N-terminal His tag.
Species	Sars-Cov-2
Source	E.coli
ProteinLength	3264-3569
Description	SARS-CoV-2 3C-like proteinase (3CLpro) is the nonstructural protein number 5, also a cysteine protease, that is released from the virally encoded polyprotein by extensive proteolytic processing. The 3CLpro cleaves the C-terminus of the large replicase polyprotein 1ab (~790 kDa) at no fewer than 11 sites. Inhibiting the activity of this enzyme would block viral replication. The functional importance of 3CLpro in the viral life cycle makes this protease an attractive target for the development of drugs directed against SARS and other coronavirus infections.
Molecular Mass	35 kDa
Purity	> 90%
Applications	Activity Assay
Stability	One year at -70 centigrade from date of shipment.

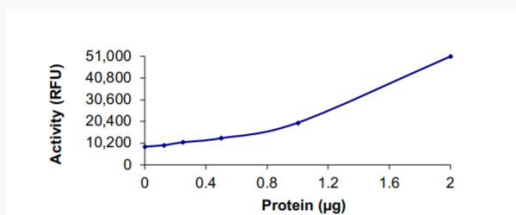
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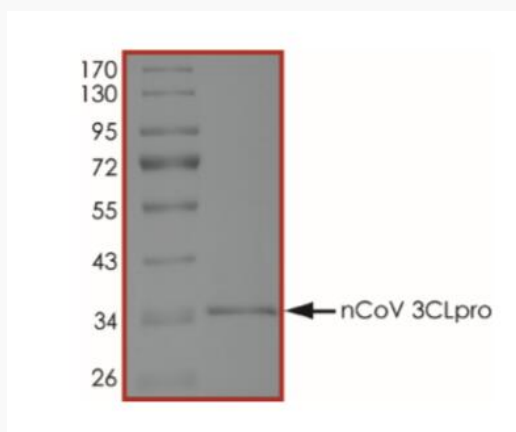
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 µg/µL
Storage Buffer	Recombinant protein stored in 50mM sodium phosphate, pH 7.5, 300mM NaCl, 200mM imidazole, 1 mM DTT, 10% glycerol.
GENE INFORMATION	
Gene Name	ORF1ab ORF1a polyprotein;ORF1ab polyprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	ORF1ab
Synonyms	ORF1ab; ORF1a polyprotein;ORF1ab polyprotein; ORF1a polyprotein;ORF1ab polyprotein; leader protein; nsp2; nsp3; nsp4; 3C-like proteinase; nsp6; nsp7; nsp8; nsp9; nsp10; RNA-dependent RNA polymerase; helicase; 3'-to-5' exonuclease; endoRNase; 2'-O-ribose methyltransferase; leader protein; nsp2; nsp3; nsp4; 3C-like proteinase; nsp6; nsp7; nsp8; nsp9; nsp10; nsp11; pp1ab; translated by -1 ribosomal frameshift; pp1a
Gene ID	43740578
Protein Refseq	YP_009725301

Activity



The protease specific activity of 3CLpro was determined to be 4170 pmol/min/mg at an enzyme concentration of 1.2 µM.

Purity



The purity was determined to be >90% by densitometry. Approx. MW 35kDa.