
Product Data Sheet

Product Name: CoV-2 3CL
 Cat. No.: GP26423
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	atRoomtemp.
Amino Acid Sequence	SGFRKMAFPS GKVEGCMVQV TCGTTTTLNGL WLDDVVYCPH HVICTSEDML NPNYEDLLIR KSNHNFLVQA GNVQLRVIGH SMQNCVLKLLK VDTANPKTPK YKRVRIQPGQ TFSVLACYNG SPSGVYQCAM RPNFTIKGSF LNGSCGSVGF NIDYDCVSFC YMHHMELPTG VHAGTDLEGN FYGPFVDRQT AQAAGTDTTI TVNVLAWLYA AVINGDRWFL NRFTTTLNDF NLVAMKYNYE PLTQDHVDIL GPLSAQTGIA VLDMCASLKE LLQNGMNGRT ILGSALLEDE FTPFDVVRQC SGVTFFQ		
Solubility	It is recommended to add deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely. CoV-2 3CL is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	CoV-2 3CL solution contains 5 % Trehalose, 0.02 % Tween-20 and PBS, pH 7.4.		

Introduction

The SARS CoV-2 3CL protease (C30 Endopeptidase) derived from human SARS-CoV-2 is a C30-type cysteine protease situated in the NS3 segment. SARS CoV-2 3CL protease biological functionality is needed to process viral polyproteins to functional complete units. SARS CoV-2 3CL protease (main protease) is the core protease protein in CoV and corresponds to non-structural protein 5. SARS CoV-2 3CL cleaves the CoV polyprotein at 11 locations. SARS CoV-2 3CL protease has a cysteine-histidine catalytic dyad at its active site and cleaves a Gln-(Ser/Ala/Gly) peptide bond. SARS CoV-2 3CL protease at position P1 cleaves the bond between the glutamine and serine/alanine/glycine. SARS CoV-2 3CL protease is necessary in the processing of the CoV replicase polyprotein.

Biological Activity

Caution: Product has not been fully validated for medical applications. For research use only.

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CoV-2 3CL is a cysteine protease that cleaves proteins with sequences including LQ(S/A/G). The cleavage takes c-terminal to the glutamine residue.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

Background

Recombinant Coronavirus 2019 3CL Protease having a Mw of approximately 33.8 kDa was purified from E. coli. The CoV-2 3CL contains 306 amino acids and purified by proprietary chromatographic technique.

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