

Recombinant SARS-CoV-2 3CL Protease (rSARS-CoV-2 3CL Protease)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	6Z1-06
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 33.8 kDa, a single non-glycosylated polypeptide chain containing 306 amino acids.
Quantity:	50 µg/100 µg/1 mg
AA Sequence:	SGFRKMAFPS GKVEGCMVQV TCGTTTLNGL WLDDVVYCPH HVICTSEDML NPNYEDLLIR KSNHNFLVQA GNVQLRVIGH SMQNCVLKLLK VDTANPKTPK YKQVRIQPGQ TFSVLACYNG SPSGVYQCAM RPNFTIKGSF LNGSCGSVGF NIDYDCVSFC YMHMELPTG VHAGTDLEGN FYGPFVDRQT AQAAGTDTTI TVNVLAWLYA AVINGDRWFL NRFTTTLNDF NLVAMKYNYE PLTQDHVDIL GPLSAQTGIA VLDMCASLKE LLQNGMNGRT ILGSALLEDE FTPFDVVRQC SGVTFQ
Purity:	> 97 % by SDS-PAGE.
Biological Activity:	Test in processing.
Physical Appearance:	White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.0, with 5 % Trehalose, 0.02 % Tween-20.
Endotoxin:	Less than 0.1 EU/µg of rSARS-CoV-2 3CL Protease as determined by LAL method.
Reconstitution:	We recommend that this vial is briefly centrifuged prior to opening. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

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The 3CL protease (aka 3CL^{pro}, M^{pro} or "Main" Protease) from the human SARS-CoV-2 coronavirus (Severe Acute Respiratory Syndrome coronavirus 2) is a C30-type cysteine protease. 3CL^{pro} activity is required to process the viral polyprotein into functional, mature subunits, and there are 11 or more sites of cleavage, many containing the sequence LQ[S/A/G]; the protease cleaves c-terminal to the glutamine amino acid. Along with the CoV-2 Papain-Like Protease, 3CL^{pro} presents an attractive target for therapeutic intervention for COVID-19. Because no human proteases with a similar cleavage specificity are known, inhibitors of 3CL^{pro} are unlikely to cause mechanism-based toxicity.