His_{10}-SARS-CoV-2 Mpro (3CLpro)

Cat. No. SBB-DE0129
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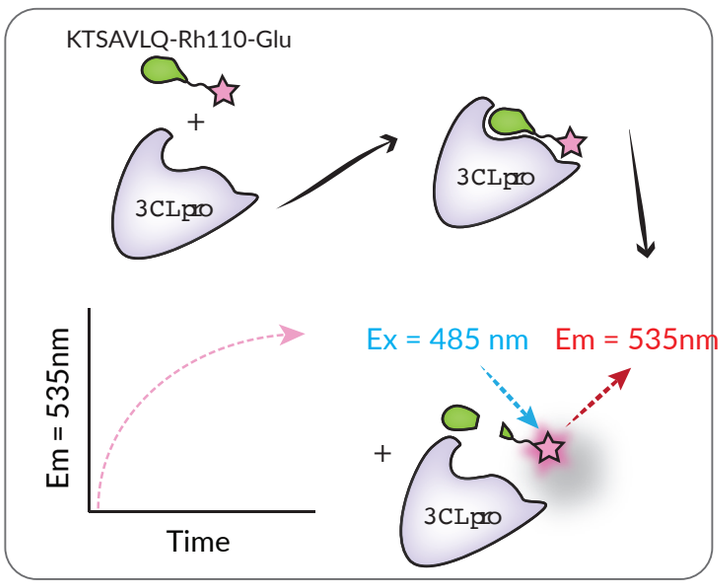
South Bay Bío

His_{10}-SARS-CoV-2 Mpro (3CL-Pro)

The human SARS-CoV-2 coronavirus harbors two proteases Papain Like Protease PLpro and 3CLpro (Chymotrypsin like Protease) or Mpro (Main-Protease) which is a C30-type cysteine protease. The viral genome encodes more than 20 proteins, with 3CLpro located within the **n**on-**s**tructural **p**rotein 5 (nsp5) section of the viral polypeptide that cleaves together with PLpro polyproteins (PP1A and PP1AB) into individual functional components.

3CLpro recognizes the peptide sequence LQ[S/A/G] where it cleaves c-terminal to the amino acid glutamine (use product SBB-PS0130, KTSAVLQ-Rh110-Glu as universal substrate). The protease 3CLpro is a potential drug target for coronavirus infections due to its essential role in processing the polyproteins that are translated from the viral RNA. The X-ray structures of the unliganded SARS-CoV-2 protease 3CLpro and its complex with an α-ketoamide inhibitor provides a basis for design of α-ketoamide inhibitors. This SARS Coronavirus recombinant 3CLpro is N-terminally His_{10}-tagged and expressed in *E.coli*.



Product Information

Quantity: 50 µg
Molecular Weight: 35.6 kDa

Concentration: 80 µM, 2.8 mg/mL

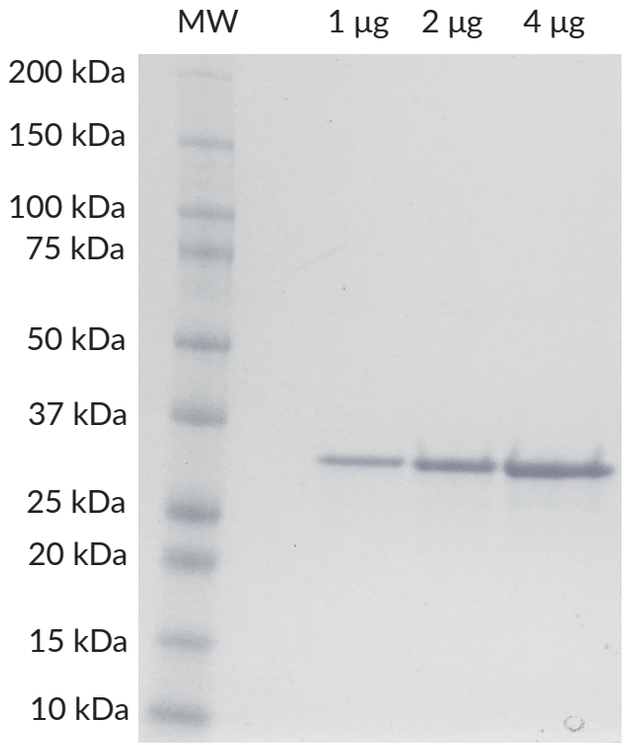
Purity: >98% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 1 mM TCEP

Storage: -80C, Avoid multiple freeze / thaw

Usage: Working concentrations of this enzyme range from 10 to 100 nM using KTSAVLQ-Rh110 (SBB-PS0130) as substrate.

Quality Control and Performance Data



His_{10}-Mpro SDS-PAGE. From left to right, increasing amunts of His_{10}-Mpro loaded onto a 4-20% SDS-PAGE gel, stained with coomassie brillant blue. Purity is >98%.

For Research Use Only, Not For Use In Humans.

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References

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