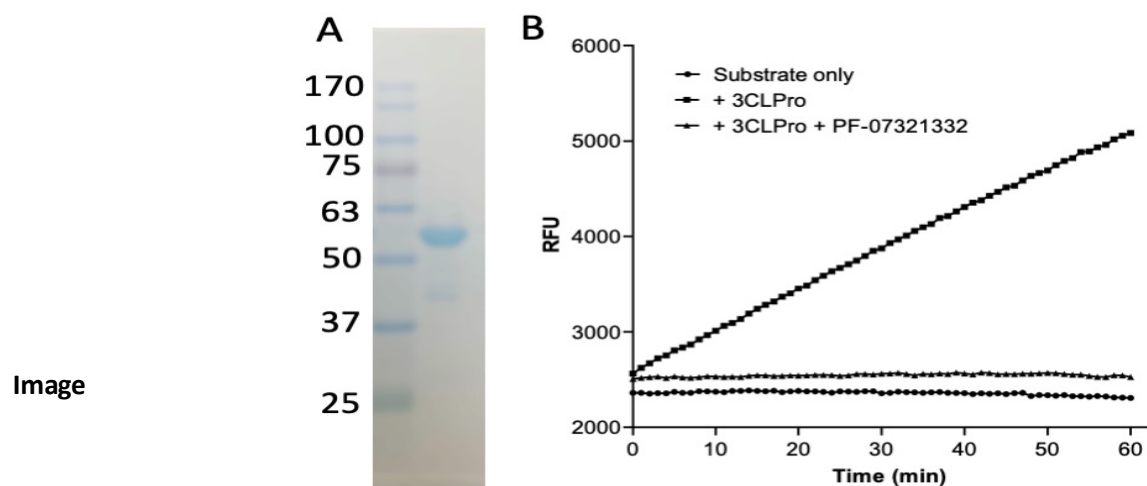


## GST-3CLPro

Cat. # V2010, V2011

**Also Known as:** 3C-like Protease, 3CLP, 3CLPro, Main Protease, Mpro  
**Accession #:** P0DTC1  
**MW (no tag):** 60.2 kDa including the GST tag  
**Species:** SARS Covid-2 3CL protease protein from Ser3264 - Gln3569  
**Source:** Bacterial recombinant  
**Tag:** GST  
**Stock Buffer:** 20 mM Tris, pH 7.1 at 37 °C, 150 mM NaCl, 4 mM TCEP, 10% Glycerol and 0.01% Tween-20  
**Concentration:** See tube label  
**Quality Assurance:** >90% purity by SDS-PAGE; Cleavage of the fluorogenic substrate Dabcyl-KTSAVLQSGFRKME-Edans (see data below)



A. Coomassie stained SDS-PAGE of 5ug recombinant GST-3CLPro.

B. Characterization of GST-3CLPro activity.

Circle: 20μM Dabcyl-KTSAVLQSGFRKME-Edans (substrate, Catalog# V1010)

Triangle: Substrate + 100nM GST-3CLPro + 10μM PF-07321332 (catalog# F1000).

Square: Substrate + 100nM GST-3CLPro.

**Description:**

Maturation of SARS-CoV-2 virus requires two proteases, 3C-like protease (3CLPro) and Papain-like protease (PLPro), to cleave the large polyproteins 1a and 1ab to generate functional proteins, which is essential for genome replication and Coronavirus virion production. Both proteases are encoded by the polyproteins. 3CLPro is a cysteine protease and forms a homodimer. 3CLPro is the drug target of PF-07321332, a main component of the oral anti-Covid-19 drug Paxlovid. PLPro is also a cysteine protease that cleaves polyproteins and has deubiquitinating and deISG15ylating activities. PLPro is also a potential anti-Covid-19 drug target. The recombinant SARS-CoV-2 3C-like protease contains the catalytic domain from Ser3264-Gln3569.

**Storage:**

Keep at -80 °C freezer, avoid multiple freeze/thaw cycles.

**Reference:**

Zhang L., et al. (2020) Science doi: 10.1126/science.abb3405