

Recombinant SARS-CoV-2 3C-Like Proteinase (NSP5), His-Tag

Catalog No: 81320, 81620

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 1.4 µg/µl

Source: SARS-CoV-2

Buffer Contents: Recombinant SARS-CoV-2 3C-Like Proteinase, His-Tag is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol and 0.5 mM TCEP.

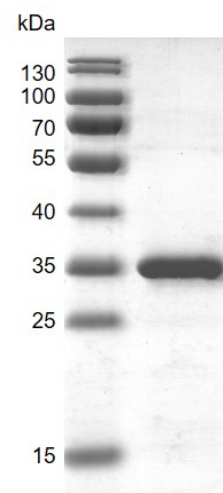
Background: 3C-Like Proteinase, also called as 3CL-pro or NSP5, is one of the nonstructural proteins encoded by SARS-CoV-2 orf1ab. The polyproteins of CoVs are cleaved by virus-encoded cysteine proteinases comprise papain and chymotrypsin-like proteases into 16 nonstructural proteins including the expression of NSP1 to NSP11 by orf1a and encoding NSP12 to NSP16 by orf1b. According to BLAST analysis, the sequence identity of ORF1ab protein between SARS-CoV-2 and SARS-CoV is more than 90% with the query cover of about 100%. The 3CL-pro cleaves the NSP4–NSP11 part of pp1a and the NSP4–NSP16 part of pp1ab at 7 and 11 conserved sites, respectively. More than any other CoV-encoded enzyme, the CoV 3CLpro and PLpro domains have been characterized in exquisite structural and biochemical detail, both in their capacity of critical regulators of NSP synthesis and as two of the primary drug targets for this virus family.

Protein Details: Recombinant SARS-CoV-2 3C-Like Proteinase, His-Tag was expressed in *E. coli* cells as the full length protein (accession number YP_009725295.1) with a C-terminal 6xHis Tag. The molecular weight of the protein is 35 kDa.

Application Notes: Recombinant SARS-CoV-2 3C-Like Proteinase is suitable for use in the study of SARS-CoV-2. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of arrival.

Proteinase_3CL-pro



Recombinant SARS-CoV-2 3C-Like proteinase gel

12.5% SDS-PAGE with Coomassie blue staining

MW: 35 kDa

Purity: >90%