

Recombinant SARS-CoV-2 NSP7 protein

Catalog No: 81315, 81615

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 2 µg/µl

Source: SARS-CoV-2

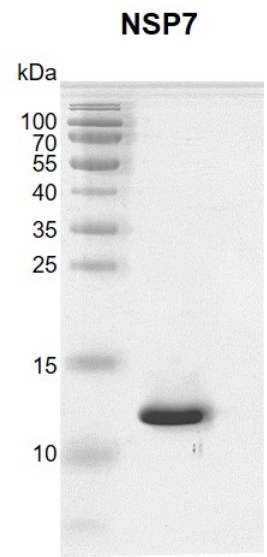
Buffer Contents: Recombinant SARS-CoV-2 NSP7 protein is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol and 0.5 mM TCEP.

Background: Coronavirus replication and transcription machinery involves multiple virus-encoded nonstructural proteins (nsp). Coronaviruses are enveloped positive-stranded RNA viruses with the largest currently known RNA genomes. Expression of their genomes begins with the translation of two large replicase polyproteins, pp1a (>4,000 residues) and pp1ab (>7,000 residues), which are encoded by the viral replicase gene that comprises open reading frame 1a (orf1a) and orf1b1. pp1a and pp1ab are extensively processed by orf1a-encoded proteases to yield 15 or 16 mature nonstructural (replicase) proteins that assemble to form the membrane-associated viral replication and transcription machinery, which is vital to the viral life cycle. SARS-CoV-2 NSP7 (Nonstructural Protein 7) is one of the nonstructural proteins encoded by SARS-CoV-2 orf1ab. According to researches, the RNA-dependent RNA polymerase (RdRp, also known as NSP12), catalyzes the synthesis of viral RNA and thus plays a central role in the replication and transcription cycle of COVID-19 virus, possibly with the assistance of NSP7 and NSP8 as co-factors.

Protein Details: Recombinant SARS-CoV-2 NSP7 protein was expressed in *E. coli* cells as the full length protein (accession number YP_009725303.1) with a C-terminal Avi and a C-terminal 6×His tag. The predicted molecular weight of the protein is 9.24 kDa.

Application Notes: Recombinant SARS-CoV-2 NSP7 protein 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.



Recombinant SARS-CoV-2 NSP7 protein gel
15% SDS-PAGE with Coomassie blue staining

Purity: >90%