

Recombinant SARS-CoV-2 NSP7

01/21

CATALOG NO:	P1647-20 20 µg P1647-50 50 µg
ALTERNATE NAMES:	SARS-CoV-2 NSP7; COVID-19 NSP7; 2019-nCoV NSP7; Non-Structural Protein 7; nsp7
MOL. WT.	The predicted molecular weight is 11.5 kDa. The protein migrates at < 14.4 kDa under reducing conditions.
ACCESSION NO:	YP_009725303.1
PURITY:	≥ 95% by SDS-PAGE
SOURCE:	<i>E.coli</i>
TAG:	His Tag
AMINO ACID SEQUENCE:	The target is expressed with the sequence Ser1-Gln83 of SARS-CoV-2 NSP7 with a 8xHis tag at the C-terminus.
FORM:	Liquid
FORMULATION:	In 0.2 µm filtered solution of 20 mM Tris, 150 mM NaCl, 10% Glycerol, 4 mM MgCl ₂ , pH 8.0.
ACTIVITY:	Activity was validated through an enzymatic assay of NSP7-NSP8/NSP12.
STORAGE CONDITIONS:	Divide into small aliquots and store at -70 °C. Avoid repeated freeze-thaw cycles.

DESCRIPTION: The replication of Coronavirus is operated by multiple non-structural proteins (nsps). The viral genomic RNA is translated from two open reading frames (ORFs), ORF1a and ORF1b. The encoded replicase polyproteins, pp1a and pp1ab, are further processed to produce nsps. NSP7 plays an important role in the transcription and replication of the viral RNA genome. NSP7 is a component of the coronavirus replicase polyprotein that forms a replication complex. It can form a dimer with NSP8 and subsequently assembles into a large hexadecameric structure, which participates in viral replication by acting as a primase. The NSP12-NSP7-NSP8 subcomplex is found to be the minimal core component for the synthesis of coronavirus RNA.



Fig A. Recombinant SARS-CoV-2 NSP7 was loaded on SDS-PAGE under reducing (lane 1) and non-reducing conditions (lane 2) and visualized by Coomassie blue stain.

RELATED PRODUCTS:

Human CellExp™ SARS-CoV-2 Spike RBD (N501Y), Recombinant (Cat. No. P1644)
 Recombinant COVID-19 3C-like Proteinase (Cat. No. P1606)
 Human CellExp™ Coronavirus Spike Protein (SARS-CoV-2; S1), Recombinant (P1524)
 Human CellExp™ SARS-CoV-2 Spike Protein (RBD), Recombinant (P1530)
 Recombinant SARS-CoV-2 3C-like Proteinase (Cat. No. P1550)

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