Recombinant SARS-CoV-2 NSP1 Protein (His Tag)

Catalog Number: PKSR030467

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	SARS-CoV-2
Source	E.coli-derived SARS-CoV-2 NSP1 protein Met1-Gly180, with an C-terminal His
Calculated MW	22.7 kDa
Observed MW	25 kDa
Accession	YP_009725297.1
Bio-activity	Not validated for activity
Properties	
Purity	> 85 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Store at $<$ -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel
	packs. Upon receipt, store it immediately at $< -20^{\circ}$ C.
Formulation	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 150mM NaCl, 10% Glycerol,
	pH 8.5.
Data	
kDa Mk 120 90 60 40 30 20 14	

Background

The Severe Acute Respiratory Syndrome (SARS) Coronavirus (CoV) is an enveloped, positive-stranded RNA viruses that can cause a severe respiratory disease. Its genome consists of a \sim 30 kb linear, non-segmented, capped, polycistronic, polyadenylated RNA molecule, the first two-third of which is directly translated into two large polyproteins. These two polypeptides are processed into 16 non-structural proteins (nsps), forming the replicase complex, which is active in the cytoplasm in close association with cellular membranes. Nsp1 was proved to be able to suppress host gene expression by promoting host mRNA degradation and was involved in cellular chemokine deregulation. This virus evades the host innate immune response in part through the expression of its non-structural protein (nsp) 1, which inhibits both host gene expression and virus- and interferon (IFN)-dependent signaling. Thus, nsp1 is a promising target for drugs, as inhibition of nsp1 would make SARS-CoV more susceptible to the host antiviral defenses.