Recombinant SARS-CoV-2 NSP13 protein

Catalog No. PKSV030328

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

Description	
Synonyms	SARS-CoV 2 nsp13;Helicase
Species	SARS-CoV-2
Expression Host	E.coli
Sequence	Ala5325-Gln5925
Accession	QHD43415.1
Calculated Molecular Weight	69.2 kDa
Tag	N-His
Bioactivity	Not validated for activity
Properties	
Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyopilized from PBS pH7. 4,0.02%NLS, 1mM EDTA, 4%trehalose,1% mannitol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
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Data



> 90 % as determined by reducing SDS-PAGE.

Background

NSP13 is a 67?kDa protein that belongs to the helicase superfamily 1B, it utilizes the energy of nucleotide triphosphate hydrolysis to catalyze the unwinding of double-stranded DNA or RNA in a 5' to 3' direction. Although NSP13 is believed to act on RNA in vivo enzymatic characterization shows a significantly more robust activity on DNA in in vitro assays

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with relatively weak non processive helicase activity when compared to other superfamily 1B enzymes. NSP13 has been shown to interact with the viral RNA-dependent RNA polymerase NSP1210,11, and acts in concert with the replication-transcription complex (NSP7/NSP8/NSP12). This interaction has been found to significantly stimulate the helicase activity of NSP13 possibly by means of mechano-regulation. In addition to its helicase activity, NSP13 also possesses RNA 5' triphosphatase activity within the same active site, suggesting a further essential role for NSP13 in the formation of the viral 5' mRNA cap.

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