

# Recombinant SARS-CoV-2 NSP13 protein

Catalog Number:PKSV030328



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

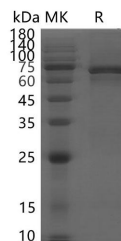
## Description

<b>Synonyms</b>	SARS-CoV 2 nsp13;Helicase
<b>Species</b>	SARS-CoV-2
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Ala5325-Gln5925
<b>Accession</b>	QHD43415.1
<b>Calculated Molecular Weight</b>	69.2 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Please contact us for more information.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 90 % as determined by reducing SDS-PAGE.

## Background

NSP13 is a 67kDa 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 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 NSP12,10,11, 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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Fax: 1-832-243-6017