Recombinant SARS-CoV-2 NSP15 protein

Catalog Number: PKSV030329

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

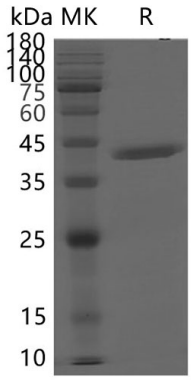
Description

Species	SARS-CoV-2
Source	E.coli-derived SARS-CoV-2 SARS-CoV-2 NSP15 protein Gln6452-Gln6798, with an N-terminal His
Mol_Mass	41.2 kDa
Accession	QHD43415.1
Bio-activity	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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Supplied as solution form in PBS, pH7.5 or lyophilized from PBS, pH7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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.

Data



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Background

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Nsp15-like endoribonucleases are a characteristic of all coronavirus family members. Biochemical experiments with recombinant Nsp15 have established that it preferentially cleaves RNA substrates 3′ of uridines, and therefore Nsp15 is commonly called endoU alluding to its cleavage specificity. Conservation of Nsp15 across Coronaviridae suggests that its endonuclease function is critical for their viral life cycle, however, the specific role of Nsp15 in viral propagation is still unclear. Nsp15 was initially thought to play an essential proofreading role in viral replication until it was shown that the coronavirus, mouse hepatitis virus (MHV), can replicate with a catalytically deficient variant of Nsp15 in cell culture. More recent work suggests that rather than functioning in viral RNA synthesis, Nsp15 nuclease activity is important to evade activation of host immune responses. Recent analysis of viral RNA from MHV-infected cells harboring a catalytically deficient Nsp15 revealed an accumulation of 12–17 polyuridine tracts at the 5′-end of the negative-strand viral RNA intermediates. Considering that polyuridine negative-strand RNA elicits an interferon-mediated response, this suggests a role for Nsp15 in regulating the length of polyuridines found at the 5′-end of negative-strand viral RNA to evade activation of the host innate immune response.

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