

SARS-CoV-2 NSP8 Protein (Avi)

General Information

Protein Construction:	A DNA sequence encoding the SARS-CoV-2 (2019-nCoV) NSP8 Protein (YP_009725304.1) (Ala1-Gln198) was expressed with a AVI tag at the C-terminus. Predicted N terminal: Gly
Species:	SARS-CoV-2
Expression Host:	E. coli
Accession:	YP_009725304.1
Molecular Weight:	24.17 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing 20 mM Tris 500 mM NaCl pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NSP8 is a nonstructural protein of coronavirus. NSP8 acts as a primase in RNA synthesis. NSP8 and NSP7 are essential co-factors of NSP12 (the catalytic subunit with RNA-dependent RNA polymerase activity) that can remarkably stimulate RdRp activity. The nsp12-nsp7-nsp8 subcomplex is defined as the minimal core component for mediating coronavirus RNA synthesis.

Reference

Qi Peng, et al. Structural and Biochemical Characterization of the nsp12-nsp7-nsp8 Core Polymerase Complex from SARS-CoV-2. Cell Reports. 2020

Yan Gao, et al. Structure of the RNA-dependent RNA polymerase from COVID-19 virus. Science. 2020

Purnima Kumar, et al. The nonstructural protein 8 (nsp8) of the SARS coronavirus interacts with its ORF6 accessory protein. Virology. 2007

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