# Recombinant SARS-CoV-2 NSP12 protein

Catalog Number: PKSV030327



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

### **Description**

Synonyms SARS-CoV 2 nsp12;RNA-directed RNA polymerase;RdRp

Species SARS-CoV-2

**Expression Host** E.coli

SequenceAsp4891-Val5212AccessionQHD43415.1Calculated Molecular Weight64.0 kDaObserved molecular weight60 kDaTagN-Gst

### **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** Supplied as solution form in PBS, pH7.5 or lyophilized from PBS, pH7.5

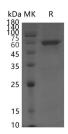
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 90 % as determined by reducing SDS-PAGE.

## **Background**

The RdRp of SARS-CoV-2 is composed of a catalytic subunit known as nsp12 as well as two accessory subunits, nsp8 and nsp7. The structure of this RdRp has recently been reported; it is highly similar to the RdRp of SARS-CoV, a zoonotic coronavirus that spread into the human population in 2002. The nsp12 subunit contains an N-terminal nidovirus RdRp-associated nucleotidyltransferase (NiRAN) domain, an interface domain and a C-terminal RdRp domain. The RdRp domain resembles a right hand, comprising the fingers, palm and thumb subdomains that are found in all single-subunit polymerases. Subunits nsp7 and nsp8 bind to the thumb, and an additional copy of nsp8 binds to the fingers domain. Structural information is also available for nsp8–nsp7 complexes.

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