

Recombinant 2019-nCoV NSP10/NSP16 Methyltransferase Protein, His-tagged

Cat. No. NSP10-05C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV NSP10/NSP16 methyltransferase includes full length NSP10 (A4254-Q4392) and NSP16 (S6799-N7096) expressed in E. coli using C-terminal His tag.
Species	Sars-Cov-2
Source	E.coli
ProteinLength	4254-4392;6799-7096 a.a.
Description	Many eukaryotic viruses have evolved 2'-O-methyltransferases (2'-O-MTase) to modify their viral mRNAs and carry a cap-1 structure (m7GpppNm) at the 5' end. This 5' cap structure is important for viral mRNA stability, protein translation and viral immune escape. SARS-CoV possess NSP16 that has 2'-O-MTase activity. NSP16 requires NSP 10 for activation which is a conserved mechanism in corona viruses. Therefore, inhibitors targeting the NSP10/NSP16 2'-O-MTase are potential targets for developing anti-coronavirus drugs.
Molecular Mass	38 kDa (NSP16) and 19 kDa (NSP10)
Purity	> 90%
Applications	Activity Assay

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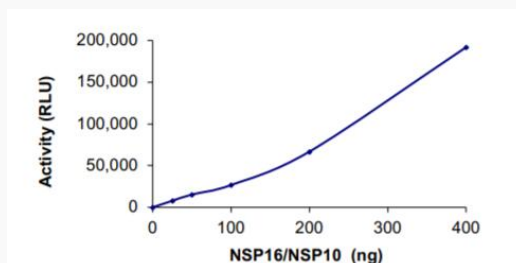
Stability	One year at -70 centigrade from date of shipment.
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.2 µg/µL
Storage Buffer	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.25mM DTT, 25% glycerol.
Full Length	Full L.
GENE INFORMATION	
Gene Name	ORF1ab ORF1a polyprotein;ORF1ab polyprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	ORF1ab
Synonyms	ORF1ab; ORF1a polyprotein;ORF1ab polyprotein; ORF1a polyprotein;ORF1ab polyprotein; leader protein; nsp2; nsp3; nsp4; 3C-like proteinase; nsp6; nsp7; nsp8; nsp9; nsp10; RNA-dependent RNA polymerase; helicase; 3'-to-5' exonuclease; endoRNase; 2'-O-ribose methyltransferase; leader protein; nsp2; nsp3; nsp4; 3C-like proteinase; nsp6; nsp7; nsp8; nsp9; nsp10; nsp11; pp1ab; translated by -1 ribosomal frameshift; pp1a
Gene ID	43740578
Protein Refseq	YP_009725306

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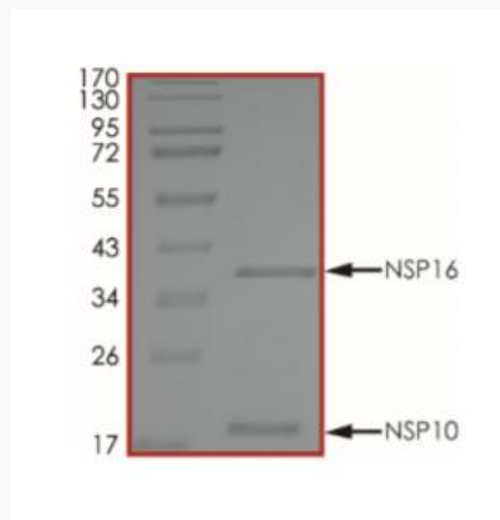
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Activity



The specific activity of 2019-nCoV NSP10/NSP16 methyltransferase was determined to be 53 pmol/min/mg as

Purity



The purity of active 2019-nCoV NSP10/NSP16 was determined to be >90% by densitometry. Approx. MW 38kDa (NSP16) and 19 kDa (NSP10).