

MRC PPU Reagents and Services

Standard Operating Procedure

Preparation of NSP7 [1 - 83] SARS CoV2

Enzyme description:- NSP7 [1 - 83]

Clone number:- DU 68509

Source:- Recombinant

Expression system:- *E. coli*

Tag:- N-terminal MBP

Purification method:- Amylose Resin

Calculated molecular mass:-

Monoisotopic 53,445.14 daltons

Average Mass 53,478.74 daltons

[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 4.89

Purity:- 95 %

Enzyme storage buffer:-

50 mM Tris-HCl pH 7.5, 270 mM Sucrose, 150 mM NaCl, 0.1 mM EGTA,
0.1 % 2-mercaptoethanol, 0.03 % Brij-35

Storage temperature:- -70 °C

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Clone Data Sheet

NSP7 [1 – 83] SARS CoV2

Protein NSP7 [1 - 83]

Clone number DU 68509

Accession number QHD43415.1

Tags N-terminal MBP

Bacterially expressed protein

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MKIEEGKLVIIWINGDKGYNGLAEVGGKFEKDTGIKVTVEHPDKLE
EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL
YFPTWDAVRYNGKLIAYPIAVEALSIIYNKDLLPNPPKTWEEIPA
LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGYDIK
DVGVDNAGAKAGLTFLVDLIKNKHMNADTDYSIAEAAFNKGETAM
TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA
SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYEEELVKD
PRIAATMENAQKGEIMPNI PQMSAFWYAVRTAVINAASGRQTVDE
ALKDAQTNSSSNNNNNNNNNNLGDDDDKVPEFLEVLFOGPLGSSK
MSDVKCTSVLLSVLQQLRVESSKLWAQCVQLHNDILLAKDTTE
AFEKMSVLLSVLLSMQGAVDINKLCEEMLDNRATLQ
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Native sequence Amino acids S1 – Q83 (end).
Residue S404 of the fusion protein is equivalent to S1 of the native enzyme. The MBP tag is located at residues 1 – 367.

Protease cleavage Enterokinase (DDDDK) residues 384 – 388
PreScission (LEVLFOG) residues 393 – 400