

# *MRC PPU Reagents and Services*

## **Standard Operating Procedure**

### **Preparation of NSP5 [1 - 306] SARS CoV2**

**Enzyme description:-** NSP5 [1- 306]

**Clone number:-** DU 67777

**Source:-** Recombinant

**Expression system:-** *E. coli*

**Tag:-** N-terminal MBP

**Purification method:-** Amylose Resin

**Calculated molecular mass:-**

Monoisotopic 77,985.87 daltons

Average Mass 78,035.56 daltons

[cysteines reduced, methionines have not been oxidised]

**Theoretical pI:-** 5.12

**Purity:-** 90 %

**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

### NSP5 [1 – 306] SARS CoV2

**Protein** NSP5 [1 - 306]

**Clone number** DU 67777

**Accession number** QHD43415.1

**Tags** N-terminal MBP

**Bacterially expressed protein** MKIEEGKLVIWINGDKGYNGLAEVGGKFEKDTGIKVTVEHPDKLE  
EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL  
YPFTWDAVRYNGKLIAYPIAVEALSLIYNKDLLPNPPKTWEEIPA  
LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGYDIK  
DVGVDNAGAKAGLTFVLVDLIKKNHMNADTDYSIAEAAFNKGETAM  
TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA  
SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYYEELVKD  
PRIAATMENAQKGEIMPNIPOMSAFWYAVRTAVINAASGRQTVDE  
ALKDAQTNSSNNNNNNNNNLGDDDDKVPEFLEVLFGGPLGSSG  
**FRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDVVVYCPRHVICTSE**  
**DMLNPNYEDLLIRKSNHNFLVQAGNVQLRVI GHSMQNCVLKLVKVD**  
**TANPKTPKYKQVRIQPGQTF SVLACYNGSPSGVYQCAMRPNFTIK**  
**GSFLNGSCGSVGFNIDYDCVSFCYMHMELPTGVHAGTDLEGNFY**  
**GPFVDRQTAQAAGTDTTITVNVLAWLYAAVINGDRWFLNRFTTTL**  
**NDFNLVAMKYNYEPLTQDHVDILGPLSAQTGIAVLDMCASLKELL**  
**QNGMNGRTILGSALLEDEF TPFDVVRQCSGVTFQ**

**Native sequence** Amino acids S1 – Q306 (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 (LEVLFGQP) residues 393 – 400