

## *MRC PPU Reagents and Services*

### **Standard Operating Procedure**

#### **Preparation of Membrane Protein [1 - 222] SARS CoV2**

**Enzyme description:-** Membrane Protein [1 - 222]

**Clone number:-** DU 67737

**Source:-** Recombinant

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

**Tag:-** N-terminal MBP

**Purification method:-** Amylose Resin

**Calculated molecular mass:-**

Monoisotopic 69,341.81 daltons

Average Mass 69,385.53 daltons

[cysteines reduced, methionines have not been oxidised]

**Theoretical pI:-** 5.79

**Purity:-** 80 %

**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

### Membrane Protein [1 – 222] SARS CoV2

<b><u>Protein</u></b>	Membrane Protein [1 - 222]
<b><u>Clone number</u></b>	DU 67737
<b><u>Accession number</u></b>	QHD43419.1
<b><u>Tags</u></b>	N-terminal MBP
<b><u>Bacterially expressed protein</u></b>	<p>MKIEEGKLVIIWINGDKGYNGLAEVGGKFEKDTGIKVTVEHPDKLE EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL YPFTWDAVRYNGKLIAYPIAVEALS LIYNKDLLPNPPKTWEEIPA LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGYD IK DVGVDNAGAKAGLTFLVDLIKNKHMNADTDYSIAEAAFNKGETAM TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKS YEEELVKD PRIAATMENAQKGEIMPNI PQMSAFWYAVRTAVINAASGRQTVDE ALKDAQTNSSNNNNNNNNNNLGD DDDDKVPEFLEVL FQGPLGSM <b>DSNGTITVEELKKLLEQOWNLVIGFLFTWICLLQFAYANRNRFLY</b> <b>I IKLIFLWLLWPVTLACFVLA AVYRINWITGGIAIAMA CLVGLMW</b> <b>LSYFIASFRLFARTRSMWSFN PETNILLNVPLHG TILTRPLLESE</b> <b>LVIGAVILRGHLRIAGHHLGRCDIKDLPKEITVATSRTL SYYKLG</b> <b>ASQRVAGDSGFAAYSRYRIGNYKLNTDHSSSSDNIALLVQ</b></p>
<b><u>Native sequence</u></b>	<p>Amino acids M1 – Q222 (end). Residue M404 of the fusion protein is equivalent to M1 of the native enzyme. The MBP tag is located at residues 1 – 367.</p>
<b><u>Protease cleavage</u></b>	<p>Enterokinase (DDDDK) residues 384 – 388 PreScission (LEVL FQGP) residues 393 – 400</p>