

MRC PPU Reagents and Services

Standard Operating Procedure

Preparation of Envelope Protein [1 – 82] MERS CoV

Enzyme description:- MERS E Protein [1 - 82]

Clone number:- DU 68500

Source:- Recombinant

Expression system:- *E. coli*

Tag:- N-terminal MBP

Purification method:- Amylose Resin

Calculated molecular mass:-

Monoisotopic 53, 559.22 daltons

Average Mass 53, 595.15 daltons

[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 4.93

Purity:- 85%

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

Envelope Protein [1 – 82] MERS CoV

<u>Protein</u>	MERS E Protein [1 - 82]
<u>Clone number</u>	DU 68500
<u>Accession number</u>	AGV08472.1
<u>Tags</u>	N-terminal MBP
<u>Bacterially expressed protein</u>	MKIEEGKLVIWINGDKGYNGLAEVGKKFEKDTGIKVTVEHPDKLE EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL YPFTWDAVRYNGKLIAYPIAVEALSLIYNKDLLPNPPKTWEEIPA LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGKYDIK DVGVDNAGAKAGLTFLVDLIKKNKHMNADTDYSIAEAAFNKGETAM TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYYYEELVKD PRIAATMENAQKGEIMPNI PQMSAFWYAVRTAVINAASGRQTVDE ALKDAQTNSSNNNNNNNNNNNLGDDDDKVPEFLEVLFGQPLGSML PFVQERIGLFIVNFFIFTVVCATLLVCMAFLTATRLCVQCMTGF NTLLVQPALYLYNTGRSVYVKFQDSKPPLPPDEWV
<u>Native sequence</u>	Amino acids M1 – V82 (end). Residue M404 of the fusion protein is equivalent to M1 of the native enzyme. The MBP tag is located at residues 1 – 367.
<u>Protease cleavage</u>	Enterokinase (DDDDK) residues 384 – 388 PreScission (<u>LEVLFQGP</u>) residues 393 – 400