

**MRC PPU Reagents and Services**

**Standard Operating Procedure**

**Preparation of Nucleocapsid Protein [1 - 413] MERS CoV**

**Enzyme description:-** MERS N Protein [1 - 413]

**Clone number:-** DU 67732

**Source:-** Recombinant

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

**Tag:-** N-terminal GST

**Purification method:-** GSH Agarose

**Calculated molecular mass:-**

Monoisotopic 71,799.40 daltons

Average Mass 71,844.39 daltons

[cysteines reduced, methionines have not been oxidised]

**Theoretical pI:-** 9.34

**Purity:-** 75 %

**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**

**Nucleocapsid Protein [1 – 413] MERS CoV**

**Protein** MERS N Protein [1 - 413]

**Clone number** DU 67732

**Accession number** ANF29169.1

**Tags** N-terminal GST

**Bacterially expressed protein**  
MSPILGYWKIKGLVQPTRLLEYLEEKYEEHYERDEGDKWRNKK  
FELGLEFPNLPIYYIDGDVKLTQSMAIIIRYIADKHNMMLGGCPKERA  
EISMLEGAVLDIIRGVSRAYSKDFETLKVDFLSKLPEMLKMFED  
RLCHKTYLNGDHVTPDFMLYDALDVVLYMDPMCLDAFPKLVCFK  
KRIEAIPQIDKYLKSSKYIAWPLQGWQATFGGGDHPPKSDLEVLF  
QGPLGSMASPAAPRAVSFADNNDITNTNLSRGGRNPKPRAAPNN  
TVSWYTGLTQHGKVPLTFPPGQGVPLNANSTPAQNAGYWRRQDRK  
INTGNGIKQLAPRWYFYTGPEAALPFR~~A~~VKDGIWWHEDGAT  
DAPSTFGTRNPNNDSAIVTQFAPGT~~K~~LPKNFHIEGTGGNSQSSR  
ASSASRNSSRSSSQGSRSGNSTRGTSPGP~~S~~GIGAVGGDLLYLDLL  
NRLQALESGKV~~K~~QSQPKVITKKDAAA~~A~~AKNMRHKRT~~T~~KS~~F~~NMVQ  
AFGLRGPGDLQGNFGDLQLNKLGTEDPRWPQIAELAPTA~~S~~AFMG~~M~~  
SQFKLTHQNDDHGNPVFLRYSGAIKLD~~P~~KNPNYNKWLELLEQN  
IDAYKTFPKKEKKQ~~K~~APKEESTDQMSEPPKEQRVQGSITQRT~~R~~TR  
PSVQPGPMIDVNTD

**Native sequence** Amino acids M1 – D413 (end).

Residue M232 of the fusion protein is equivalent to M1 of the native enzyme. The GST tag is located at residues 1 – 220.

**Protease cleavage** PreScission (LEVLFQGP) residues 221 – 228