MRC PPU Reagents and Services

Standard Operating Procedure

Preparation of Nucleocapsid Protein [1 - 389] Human CoV 229E

Enzyme description:- Human CoV 229E N Protein [1 - 389]

Clone number:- DU 67739

Source:- Recombinant

Expression system:- *E. coli*

Tag:- N-terminal MBP

Purification method:- Amylose Resin

Calculated molecular mass:-
Monoisotopic 87, 651.64 daltons
Average Mass 87, 705.68 daltons
[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 7.67

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

Nucleocapsid Protein [1 - 389] Human CoV 229E

Protein	Human CoV 229E N Protein [1 – 389]
Clone number	DU 67739
Accession number	NP_073556.1
Tags	N-terminal MBP

Bacterially expressed protein

MKIEEGKLVIWINGDKGYNGLAEVGKKFEKDTGIKVTVEHPDKLE
EKFPQVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAFQDKL
YPFTWDAVRYNGKLIAYPIAVEALSLIYNKDLLPNPPKTWEEIPA
LDKELKAKGKSALMFNLQEPYFTWPLIAADGGYAFKYENGKYDIK
DVGVDNAGAKAGLTFLVDLIKNKHMNADTDYSIAEAAFNKGETAM
TINGPWAWSNIDTSKVNYGVTVLPTFKGQPSKPFVGVLSAGINAA
SPNKELAKEFLENYLLTDEGLEAVNKDKPLGAVALKSYEEELVKD
PRIAATMENAQKGEIMPNIPQMSAFWYAVRTAVINAASGRQTVDE
ALKDAQTNSSSNNNNNNNNNNLGDDDDKVPEFLEVLFQGPLGS**MA**
TVKWADASEPQRGRQGRIPYSLYSPLLVDSEQPWKVIPRNLVPIN
KKDKNKLIGYWNVQKRFRTRKGKRVDLSPKLHFYYLGTGPHKDAK
FRERVEGVVWVAVDGAKTEPTGYGVRRKNSEPEIPHFNQKLPNGV
TVVEEPDSRAPSRSQSRSQSRGRGESKPQSRNPSSDRNHNSQDDI
MKAVAAALKSLGFDKPQEKDKKSAKTGTPKPSRNQSPASSQTSAK
SLARSQSSETKEQKHEMQKPRWKRQPNDDVTSNVTQCFGPRDLDH
NFGSAGVVANGVKAKGYPQFAELVPSTAAMLFDSHIVSKESGNTV
VLTFTTRVTVPKDHPHLGKFLEELNAFTREMQQHPLLNPSALEFN
PSQTSPATAEPVRDEVSIETDIIDEVN

Native sequence

Amino acids M1 – N389 (end).
Residue M404 of the fusion protein is equivalent to M1 of the native enzyme. The MBP tag is located at residues 1 – 367.

Protease cleavage

Enterokinase (DDDDK) residues 384 – 388
PreScission (LEVLFQGP) residues 393 – 400