

MRC PPU Reagents and Services

Standard Operating Procedure

Preparation of Influenza A Virus M1 [1 – 253]

Enzyme description:- IAV M1 [1 - 253]

Clone number:- DU 70828

Source:- Recombinant

Expression system:- *E.coli*

Tag:- N-terminal MBP

Purification method:- Amylose Resin

Calculated molecular mass:-

Monoisotopic 72, 086.67 daltons

Average Mass 72, 132.18 daltons

[cysteines reduced, methionines have not been oxidised]

Theoretical pI:- 5.74

Purity:- 80 %

Enzyme storage buffer:-

50 mM Tris-HCl pH 7.5, 270 mM Sucrose, 150 mM NaCl, 0.1 mM EGTA, 0.5 mM TCEP

Storage temperature:- -70 °C

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Clone Data Sheet

Influenza A Virus M1 [1 – 253]

<u>Protein</u>	IAV M1 [1 - 253]
<u>Clone number</u>	DU 70828
<u>Species</u>	Influenza A virus (IAV) strain A/Puerto Rico/8/1934(H1N1) ('PR8')
<u>Tags</u>	N-terminal MBP
<u>Bacterially expressed protein</u>	MKIEEGKLVIIWINGDKGYNGLAEVGGKFEKDTGIKVTVEHPDKLEEKFP QVAATGDGPDIIIFWAHDRFGGYAQSGLLAEITPDKAFQDKLYPFTWDAV RYNGKLIAYPIAVEALSLIYNKDLLPNPPKTWEEIPALDKELKAKGKSA LMFNLQEPYFTWPLIAADGGYAFKYENGGYDIKDVGVNAGAKAGLTF VDLIKKNKHMNADTDYSIAEAAFNKGETAMTINGPWAWSNIDTSKVNYGV TVLPFTFKGQPSKPFVGVLSAGINAASPNKELAKEFLENYLLTDEGLEAV NKDKPLGAVALKSYEEELVKDPRIAATMENAQKGEIMPNIPOMSAFWYA VRTAVINAASGRQTVDEALKDAQTNSSNNNNNNNNNNLGDGDDDKVPEF <u>LEVLFQGPLGSM</u> <u>LEVLMEWLKTRPILSPLTKGILGFVFTLTVP</u> <u>SEGLQRRRFVQNALNGN</u> <u>GD</u> <u>PNNMDKAVKLYRKLKREITFHGAKEISLSYSAGALASCMGLIYNRMG</u> <u>AVTTEVAFGLVCATCEQIADSQHRSHRQMVTTTNP</u> <u>LI</u> <u>RHENRMVLASTT</u> <u>AKAMEQMAGSSEQAAEAMEVASQARQMVQAMRTIGTHPSSSAGLKNDLL</u> <u>ENLQAYQKRMGVQMORFK</u>
<u>Native sequence</u>	Amino acids M1 – K253 (end residue) of IAV M1 protein. 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>	PreScission (<u>LEVLFQGP</u>) residues 393 - 400