

***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]**

<b><u>Protein</u></b>	IAV M1 [1 - 253]
<b><u>Clone number</u></b>	DU 70828
<b><u>Species</u></b>	Influenza A virus (IAV) strain A/Puerto Rico/8/1934(H1N1) ('PR8')
<b><u>Tags</u></b>	N-terminal GST
<b><u>Bacterially expressed protein</u></b>	MKIEEGKLVIWINGDKGYNGLAEVGKKFEKDTGIKVTVEHPDKLEEKFP QVAATGDGPDIIFWAHDRFGGYAQSGLLAEITPDKAQDKLYPFTWDAV RYNGKLIAPIAVEALSLIYNKDLLPNPPKTWEETIPALDKELAKGKSA LMFNLQEPEYFTWPLIAADGGYAFKYENGKYDIKDVGVDNAGAKAGLTFL VDLIKKNHMNADTDYSIAEEAFNKGETAMTINGPWAWSNIDTSKVNYGV TVLPTFKGQPSKPFVGVLISAGINAASPNKELAKEFLENYLLTDEGLEAV NKDKPLGAVALKSYEEELVKDPRIAATMENAQKGEIMPNIQOMSAFWYA VRTAVINAASGRQTVDEALKDAQTNSTSSNNNNNNNNNLGDDDKVPEF <u>LEVLFQGPLGSMSLLTEVETYVLSIIPSGPLKAEIAQRLEDVFAGKNTD</u> <u>LEVLMEWLKTRPIILSPLTKGILGFVFTLTVPSEERGLQRRRFVQNALNGN</u> GDPNNMDKAVKLYRKLKREITFHGAKEISLSYSAGALASCMGLIYNRMG AVTTEVAFGLVCATCEQIADSQHRSRQMVTTNPLIRHENRMVLASTT AKAMEQMAGSSEQAAEAMEVASQARQMVQAMRTIGTHPSSAGLKNDLL ENLQAYQKRMGVQMQRFK
<b><u>Native sequence</u></b>	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 GST tag is located at residues 1 – 220.
<b><u>Protease cleavage</u></b>	PreScission ( <u>LEVLFQGP</u> ) residues 393 - 400