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## Recombinant FMDV VP1 protein, Sumo & His

Catalog Number: bs-10815P

Concentration: >0.5 mg/ml

AA Seq: 1-209/209

Predicted MW: 45

Detected MW: 45 kDa

Tags: Sumo & His

Activity: Not tested

Endotoxin: Not analyzed

Purity: >95% as determined by SDS-PAGE

Purification: AC

Form: Lyophilized or Liquid

Storage: PBS (pH7.4).

Stored at -70°C or -20°C. Avoid repeated freeze/thaw cycles.

**Background:** The foot-and-mouth disease virus (FMDV) is the pathogen that causes foot-and-mouth disease. It is a picornavirus, the prototypical member of the Aphthovirus genus. The disease, which causes vesicles (blisters) in the mouth and feet of bovids, suids, ovids, caprids and other cloven-hoofed animals is highly infectious and a major plague of animal farming. The virus particle (25-30 nm) has an icosahedral capsid made of protein, without envelope, containing a single strand of ribonucleic acid (RNA) containing a positive encoding of its genome. When the virus comes in contact with the membrane of a host cell, it binds to a receptor site and triggers a folding-in of the membrane. Once the virus is inside the host cell, the capsid dissolves, and the RNA gets replicated, and translated into viral proteins by the cell's ribosomes using a cap-independent mechanism driven by the internal ribosome entry site element. The foot-and-mouth disease virus occurs in seven major serotypes: O, A, C, SAT-1, SAT-2, SAT-3, and Asia-1. These serotypes show some regionality, and the O serotype is most common.

### VALIDATION IMAGES

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The purity of the protein is greater than 86% as determined by reducing SDS-PAGE.

## PRODUCT SPECIFIC PUBLICATIONS

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**[IF=4.821]** Zhaohong Su. et al. Selective and fast growth of CdS nanocrystals on zinc (II) metal-organic framework architectures for photoelectrochemical response and electrochemical immunosensor of foot-and-mouth disease virus. Microchem J. 2021 Dec;;107038 Other ; . 10.1016/j.microc.2021.107038

**[IF=4.464]** Xiaoli Qin. et al. Toluidine blue-assisted synthesis of functionalized M (M=Cu, Co, Zn)-metal-organic frameworks for electrochemical immunoassay of proteins. J Electroanal Chem. 2022 Mar;;116186 Other ; Other . 10.1016/j.jelechem.2022.116186