

## Product Data Sheet

## Enterovirus D68 VP1 Protein (sf9, Fc)

Cat. No.:	HY-P75251
Synonyms:	Enterovirus D68 (EV-D68) (strain Fermon) VP1 Protein
Species:	Virus
Source:	Sf9 insect cells
Accession:	AAR98503 (S553-T861)
Gene ID:	37616478
Molecular Weight:	Approximately 60.8 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 100 mM Glycine, 10 mM NaCl, pH 7.2. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## DESCRIPTION

Background	Enterovirus D68 (EV-D68), a member of Enterovirus genus of the Picornaviridae family, mainly causes respiratory system- related diseases as well as neurological complications in some patients. The capsid of EV-D68 virus is composed of subunit proteins (VP1, VP2, VP3, and VP4). VP1, VP2 and VP3 are located on the surface of the viral capsid; the VP4 protein is relatively small, and the viral RNA is located inside the capsid. VP1 protein contains multiple epitopes and receptor binding sites and is often used in phylogenetic analysis of viruses. VP1 is the most fully exposed of the four capsid proteins and plays a role in binding to receptors. The BC-loop of the VP1 protein contains serotype-specific antigenneutralizing sites, which can be used to distinguish virus serotypes. The folded internal hydrophobic pocket of VP1 "jelly rolls" into a lipid molecule, the "pocket factor", which plays a role in stabilizing the structure of the virus. Capsid protein VP4 is released, Capsid protein VP1 N-terminus is externalized, and together, they shape a pore in the host membrane through which the viral genome is translocated into the host cell cytoplasm. In addition, after binding to the host receptor, the capsid undergoes conformational changes <sup>[1]</sup> .

## Caution: Product has not been fully validated for medical applications. For research use only.

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