

Human Enterovirus 71 VP0 Protein (His & GST Tag)

Catalog Number: 40013-V20B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

VP0; VP4-VP2

Protein Construction:

A DNA sequence encoding the amino acids (Met 1-Gln 323) of human enterovirus 71 genome polyprotein (Q66478-1), corresponding to the protein VP0 precursor, a component of immature procapsids, was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: EV71

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 72 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human enterovirus 71 protein VP0/GST chimera consists of 560 amino acids and has a calculated molecular mass of 63 kDa. It migrates as an approximately 58 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, 2mM GSH, 0.5mM PMSF, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

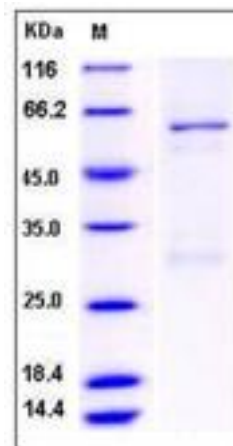
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Human enterovirus 71 genome polyprotein is a member of the picornaviruses polyprotein family. It contains two peptidase C3 domains, one RdRp catalytic domain, one SF3 helicase domain. Genome polyprotein is cleaved into the following 12 chains: Protein VP0 (VP4-VP2), Protein VP4 (P1A), Protein VP2 (P1B), Protein VP3 (P1C), Protein VP1 (P1D), Picornain 2A (P2A), Protein 2B (P2B), Protein 2C (P2C), Protein 3A (P3A), Protein 3B (P3B), Picornain 3C (Protease 3C) and RNA-directed RNA polymerase 3D-POL (P3D-POL). VP0 precursor is a component of immature procapsids. Capsid proteins VP1, VP2, VP3 and VP4 form a closed capsid enclosing the viral positive strand RNA genome. VP4 lies on the inner surface of the protein shell formed by VP1, VP2 and VP3. All the three latter proteins contain a beta-sheet structure called beta-barrel jelly roll. Together they form an icosahedral capsid composed of 60 copies of each VP1, VP2, and VP3, with a diameter of approximately 300 Angstroms. VP1 is situated at the 12 fivefold axes, whereas VP2 and VP3 are located at the quasi-sixfold axes.

References

1. Brown B.A., et al., 1995, Virus Res. 39:195-206.
2. Tang W.-F. et al., 2007, J. Biol. Chem. 282:5888-5898.
3. Huang, S.C. et al., 2008, Virus Res. 131 (2):250-9.

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