Data Sheet (Cat.No.TMPH-01835)

Human Papilloma Virus type 18 (HPV 18) Minor capsid Protein L2 (His)

General Information

Synonyms: L2;Minor capsid protein L2

Protein Construction: 1-462 aa

Species: HPV 18

Expression Host: P. pastoris (Yeast)

Accession: P06793

Molecular Weight: 51.6 kDa (predicted)

AA Sequence: MVSHRAARRKRASVTDLYKTCKQSGTCPPDVVPKVEGTTLADKILQWSSLGIFLGGLGIGTGSGTGGRTGYIPL GGRSNTVVDVGPTRPPVVIEPVGPTDPSIVTLIEDSSVVTSGAPRPTFTGTSGFDITSAGTTTPAVLDITPSSTSVS ISTTNFTNPAFSDPSIIEVPQTGEVAGNVFVGTPTSGTHGYEEIPLQTFASSGTGEEPISSTPLPTVRRVAGPRLY SRAYQQVSVANPEFLTRPSSLITYDNPAFEPVDTTLTFDPRSDVPDSDFMDIIRLHRPALTSRRGTVRFSRLGQ RATMFTRSGTQIGARVHFYHDISPIAPSPEYIELQPLVSATEDNDLFDIYADDMDPAVPVPSRSTTSFAFFKYSP TISSASSYSNVTVPLTSSWDVPVYTGPDITLPSTTSVWPIVSPTAPASTQYIGIHGTHYYLWPLYYFIPKKRKRVP YFFADGFVAA

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 90% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Minor protein of the capsid that localizes along the inner surface of the virion, within the central cavities beneath the L1 pentamers. Plays a role in capsid stabilization through interaction with the major capsid protein L1. Once the virion enters the host cell, L2 escorts the genomic DNA into the nucleus by promoting escape from the endosomal compartments and traffic through the host Golgi network. Mechanistically, the C-terminus of L2 possesses a cell-penetrating peptide that protudes from the host endosome, interacts with host cytoplasmic retromer cargo and thereby mediates the capsid delivery to the host trans-Golgi network. Plays a role through its interaction with host dynein in the intracellular microtubule-dependent transport of viral capsid toward the nucleus. Mediates the viral genome import into the nucleus through binding to host importins. Once within the nucleus, L2 localizes viral genomes to host PML bodies in order to activate early gene expression for establishment of infection. Later on, promotes late gene expression by interacting with the viral E2 protein and by inhibiting its transcriptional activation functions. During virion assembly, encapsidates the genome by direct interaction with the viral DNA.

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