

Recombinant JC polyomavirus Minor capsid protein VP2

Catalog No: #AP72954

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Package Size: #AP72954-1 20ug #AP72954-2 100ug #AP72954-3 1mg

Description

Product Name	Recombinant JC polyomavirus Minor capsid protein VP2
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:2-344aaSequence Info:Full Length
Accession No.	P03095
Uniprot	P03095
GeneID	1489520;1489522;
Calculated MW	39.2 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	GAALALLGDLVATVSEAAAATGFSVAEIAAGEAAATIEVEIASLATVEGITSTSEIAAIGLTPETYAVITGAPGAV AGFAALVQTVTGGSAIAQLGYRFFADWDHKVSTVGLFQQPAMALQLFNPEDYYDILFPGVNAFVNNIHYLDPR HWGPSLFSTISQAFWNLVRDDLPAITSQEIQRRTQKLFVESLARFLEETTWAIVNSPANLYNYISDYISRLSPV RPSMVRQVAQREGTYISFGHSYTSIDDADSIQEVQRLDLKTPNVQSGEFIERSIAPGGANQRSAPQWMLPL LLGLYGTVTPALEAYEDGPNKKRRRKEGPRASSKTSYKRRSRSSRS
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Isoform VP2 is a structural protein that resides within the core of the capsid surrounded by 72 VP1 pentamers. Participates in host cell receptor binding together with VP1. Following virus endocytosis and trafficking to the endoplasmic reticulum, VP2 and VP3 form oligomers and integrate into the endoplasmic reticulum mbrane. Heterooligomer VP2-VP3 may create a viroporin for transporting the viral genome across the endoplasmic reticulum mbrane to the cytoplasm. Nuclear entry of the viral DNA involves the selective exposure and importin recognition of VP2 or Vp3 nuclear localization signal (shared C-terminus). Plays a role in virion assbly within the nucleus in particular through a DNA-binding domain located in the C-terminal region. A N-terminal myristoylation suggests a scaffold function for virion assbly .Isoform VP3: structural protein that resides within the core of the capsid surrounded by 72 VP1 pentamers. Following virus endocytosis and trafficking to the endoplasmic reticulum, VP2 and VP3 form oligomers and integrate into the endoplasmic reticulum mbrane. Heterooligomer VP2-VP3 may create a viroporin for transporting the viral genome across the endoplasmic reticulum mbrane to the cytoplasm. Nuclear entry of the viral DNA involves the selective exposure and importin recognition of VP2 or Vp3 nuclear localization signal (shared C-terminus). Isoform VP3 plays a role in virion assbly within the nucleus. May participate in host cell lysis when associated with VP4 .Isoform VP4 is a viroporin inducing perforation of cellular mbranes to trigger virus progeny release. Forms pores of 3 nm inner diameter. VP4 is expressed about 24 hours after the late structural proteins and is not incorporated into the mature virion .

References

The Polyomaviridae Contributions of virus structure to our understanding of virus receptors and infectious entry. Neu U., Stehle T., Atwood W.J. *Virology* 384:389-399(2009) Research Topic: Others

Note: This product is for in vitro research use only