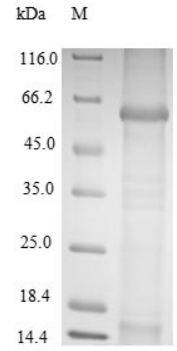
Recombinant BK polyomavirus Major capsid protein VP1

Product Code	CSB-EP360953BGY
Relevance	Forms an icosahedral capsid with a T=7 symmetry and a 50 nm diameter. The capsid is composed of 72 pentamers linked to each other by disulfide bonds and associated with VP2 or VP3 proteins. Interacts with gangliosides GT1b and GD1b containing terminal alpha2-8-linked sialic acids on the cell surface to provide virion attachment to target cell. This attachment induces virion internalization predominantly through caveolin-mediated endocytosis and traffics to the endoplasmic reticulum. Inside the endoplasmic reticulum, the protein folding machinery isomerizes VP1 interpentamer disulfide bonds, thereby triggering initial uncoating. Next, the virion uses the endoplasmic reticulum-associated degradation machinery to probably translocate in the cytosol before reaching the nucleus. Nuclear entry of the viral DNA involves the selective exposure and importin recognition of VP2/Vp3 nuclear localization signal. In late phase of infection, neo-synthesized VP1 encapsulates replicated genomic DNA in the nucleus, and participates in rearranging nucleosomes around the viral DNA
Abbreviation	Recombinant BK polyomavirus Major capsid protein VP1 protein
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.
Uniprot No.	P03088
Product Type	Recombinant Protein
Immunogen Species	BK polyomavirus (BKPyV) (Human polyomavirus 1)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MAPTKRKGECPGAAPKKPKEPVQVPKLLIKGGVEVLEVKTGVDAITEVECFLN PEMGDPDENLRGFSLKLSAENDFSSDSPERKMLPCYSTARIPLPNLNEDLTCG NLLMWEAVTVQTEVIGITSMLNLHAGSQKVHEHGGGKPIQGSNFHFFAVGGE PLEMQGVLMNYRSKYPDGTITPKNPTAQSQVMNTDHKAYLDKNNAYPVECW VPDPSRNENARYFGTFTGGENVPPVLHVTNTATTVLLDEQGVGPLCKADSLY VSAADICGLFTNSSGTQQWRGLARYFKIRLRKRSVKNPYPISFLLSDLINRRTQ RVDGQPMYGMESQVEEVRVFDGTERLPGDPDMIRYIDKQGQLQTKML
Research Area	Microbiology
Source	E.coli
Protein Names	Major structural protein VP1
Expression Region	1-362aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	60.1 kDa
Protein Length	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	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.