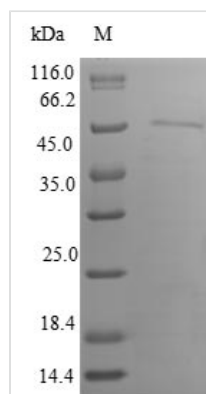




Recombinant Human Inositol hexakisphosphate kinase 1 (IP6K1)

Product Code	CSB-EP011770HU
Relevance	Converts inositol hexakisphosphate (InsP6) to diphosphoinositol pentakisphosphate (InsP7/PP-InsP5). Converts 1,3,4,5,6-pentakisphosphate (InsP5) to PP-InsP4
Abbreviation	Recombinant Human IP6K1 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.	Q92551
Alias	Inositol hexaphosphate kinase 1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MCVCQTMEVGQYGKNASRAGDRGVLLPEFIHQVGGHSSMMRYDDHTVCKPL ISREQRFYESLPPEMKEFTPEYKGVVSVCFEGDSDGYINLVAYPYVESETVEQ DDTTEREQPRRKHSRRSLHRSGSGSDHKEEKASLSLETSESSQEAKSPKVEL HSHSEVPFQMLDGNISSEKISHNPWSLRCHKQQLSRMRSESKDRKLYKFL LLENVVHHFKYPCVLDLKMGTQRQHGDDASAEKAARQMRKCEQSTSATLGVR VCGMQVYQLDTGHYLCRNKYYGRGLSIEGFRNALYQYLHNGLDLRRDLFEPI SKLRGLKAVLERQASYRFYSSLLVIYDGKECRAESCLDRRSEMLKHLDMVL PEVASSCGPSTSPSNTSPEAGPSSQPKVDVRMIDFAHSTFKGFRDDPTVHDG PDRGYVFGLENLISIMEQMRDENQ
Research Area	Signal Transduction
Source	E.coli
Target Names	IP6K1
Protein Names	Recommended name: Inositol hexakisphosphate kinase 1 Short name= InsP6 kinase 1 EC= 2.7.4.21 Alternative name(s): Inositol hexaphosphate kinase 1
Expression Region	1-441aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	66.2kDa
Protein Length	Full Length
Image	



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

Description

An entire inositol hexakisphosphate kinase 1 (IP6K1) ORF inserted a 6xHis-SUMO-tag at the N-terminus was expressed in E.coli. The generated protein is the recombinant full-length fusion IP6K1 containing 1-441aa of human IP6K1. The SDS-PAGE analysis measured its purity up to 90%, and it has a calculated molecular mass of 66.2 kDa. In-stock IP6K1 proteins are offered now. This recombinant IP6K1 protein may be used to generate specific antibodies or in the studies of IP6K1-mediated signal transduction.

IP6K1 is most abundantly expressed in the brain. IP6K1 and its product, 5-diphosphoinositol pentakisphosphate (5-IP7), act as key physiological determinants for suppression of presynaptic vesicle exocytosis and stimulation of endocytosis at central synapses. Besides, IP6K1 can directly bind and stimulate glycogen synthase kinase 3 (GSK3) in a non-catalytic manner. Min-Gyu Kim etc. showed that IP6K1 plays a role in the control of sensorimotor gating and short-term fear memory.

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.