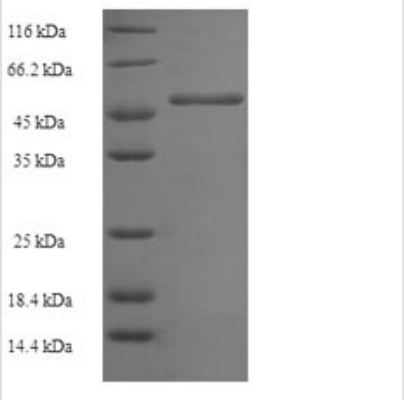
Recombinant Human Geranylgeranyl pyrophosphate synthase (GGPS1)

Product Code	CSB-EP009393HU
Relevance	Catalyzes the trans-addition of the three molecules of IPP onto DMAPP to form geranylgeranyl pyrophosphate, an important precursor of carotenoids and geranylated proteins.
Abbreviation	Recombinant Human GGPS1 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.	O95749
Alias	(2E,6E)-farnesyl diphosphate synthaseDimethylallyltranstransferase (EC:2.5.1.1)Farnesyl diphosphate synthaseFarnesyltranstransferase (EC:2.5.1.29)Geranylgeranyl diphosphate synthaseGeranyltranstransferase (EC:2.5.1.10)
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MEKTQETVQRILLEPYKYLLQLPGKQVRTKLSQAFNHWLKVPEDKLQIIIEVTE MLHNASLLIDDIEDNSKLRRGFPVAHSIYGIPSVINSANYVYFLGLEKVLTLDHP DAVKLFTRQLLELHQGQGLDIYWRDNYTCPTEEEYKAMVLQKTGGLFGLAVG LMQLFSDYKEDLKPLLNTLGLFFQIRDDYANLHSKEYSENKSFCEDLTEGKFSF PTIHAIWSRPESTQVQNILRQRTENIDIKKYCVHYLEDVGSFEYTRNTLKELEAK AYKQIDARGGNPELVALVKHLSKMFKEENE
Research Area	Cancer
Source	E.coli
Target Names	GGPS1
Expression Region	1-300aa
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	50.9kDa
Protein Length	Full Length
Image	



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

Description

This Human GGPS1 recombinant protein was produced in E.coli, where the gene sequence encoding Human GGPS1 (1-300aa) was expressed with the N-terminal 6xHis-SUMO tag. The purity of this GGPS1 protein was greater than 90% by SDS-PAGE.
Geranylgeranyl pyrophosphate synthase (GGPS1) is a key enzyme in plant terpenoid biosynthesis. The enzyme catalyzes the synthesis of geranylgeranyl pyrophosphate (GGPP), which is a precursor to several holoterpenoids (carotenoids, kaurene, diterpenes) and meroterpenoids (side-chain of chlorophylls, tocopherols, plastoquinones, phylloquinones). The study identified a cDNA for the plastid-located GGPS1 from Capsicum annuum and showed a correlative increase in enzyme activity and transcript level during fruit ripening. The cloned cDNA codes for a high molecular weight precursor of 369 amino acids which contains a transit peptide of approximately 60 amino acids. In-situ immunolocalization experiments have demonstrated that geranylgeranyl pyrophosphate synthase is located exclusively in the plastids.

Reference:
Kuntz M, Römer S, Suire C, Hugueney P, Weil JH, Schantz R, Camara B. Identification of a cDNA for the plastid-located geranylgeranyl pyrophosphate synthase from Capsicum annuum: correlative increase in enzyme activity and transcript level during fruit ripening. Plant J. 1992 Jan;2(1):25-34.

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

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