Recombinant FPPS protein (His tag)

Catalog Number	542137
Synonyms	FPP synthase; FPS; (2E,6E)-farnesyl diphosphate synthase; Dimethylallyltranstransferase; Farnesyl diphosphate synthase; Geranyltranstransferase
Species	Human
Expression System	E. coli
Accession	P14324
Molecular Weight	Predictes a molecular mass of 41.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	74-419
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 74-419 aa (P14324) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Farnesyl Pyrophosphate Synthase (FPP synthase) Fragment (74-419) from Homo sapiens. This high-purity protein fragment is designed for structural and biochemical studies, offering a stable and soluble unit that retains key catalytic properties for isoprenoid biosynthesis research. Farnesyl Pyrophosphate Synthase (FPP synthase) is a critical enzyme in isoprenoid biosynthesis, catalyzing the sequential condensation of isopentenyl pyrophosphate with allylic pyrophosphates to produce farnesyl diphosphate (FPP). FPP serves as a central precursor for diverse essential metabolites, including sterols, dolichols, carotenoids, and ubiquinones, and acts as a substrate for protein farnesylation and geranylgeranylation, which are vital for cellular signaling and membrane integrity. Located in the cytoplasm, this enzyme plays a fundamental role in metabolic pathways that support cell growth, differentiation, and homeostasis. The provided fragment (residues 74-419) was selected to ensure stability and solubility, enabling detailed investigation of its enzymatic mechanisms and interactions.