

FDPS Protein, Human (His)

Cat. No.:	HY-P75197
Synonyms:	Farnesyl pyrophosphate synthase; FPP synthase; FPS; KIAA1293
Species:	Human
Source:	E. coli
Accession:	P14324-2/NP_001129294.1 (M1-K353)
Gene ID:	2224
Molecular Weight:	Approximately 41 kDa

PROPERTIES

AA Sequence	<p>M N G D Q N S D V Y A Q E K Q D F V Q H F S Q I V R V L T E D E M G H P E I G D</p> <p>A I A R L K E V L E Y N A I G G K Y N R G L T V V V A F R E L V E P R K Q D A D</p> <p>S L Q R A W T V G W C V E L L Q A F F L V A D D I M D S S L T R R G Q I C W Y Q</p> <p>K P G V G L D A I N D A N L L E A C I Y R L L K L Y C R E Q P Y Y L N L I E L F</p> <p>L Q S S Y Q T E I G Q T L D L L T A P Q G N V D L V R F T E K R Y K S I V K Y K</p> <p>T A F Y S F Y L P I A A A M Y M A G I D G E K E H A N A K K I L L E M G E F F Q</p> <p>I Q D D Y L D L F G D P S V T G K I G T D I Q D N K C S W L V V Q C L Q R A T P</p> <p>E Q Y Q I L K E N Y G Q K E A E K V A R V K A L Y E E L D L P A V F L Q Y E E D</p> <p>S Y S H I M A L I E Q Y A A P L P P A V F L G L A R K I Y K R R K</p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	FDPS protein plays a pivotal role in isoprenoid biosynthesis, serving as the key enzyme that orchestrates the sequential
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condensation of isopentenyl pyrophosphate with allylic pyrophosphates. This enzymatic process includes the successive combination with dimethylallyl pyrophosphate, leading to the formation of geranylpyrophosphate and culminating in the generation of farnesyl diphosphate (FPP). Notably, FPP acts as a critical precursor for the biosynthesis of various essential metabolites, such as sterols, dolichols, carotenoids, and ubiquinones. Additionally, FPP serves as a substrate for protein farnesylation and geranylgeranylation, essential post-translational modifications that play crucial roles in cellular processes. The catalytic activity of FDPS underscores its significance in the synthesis of key molecules with diverse biological functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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