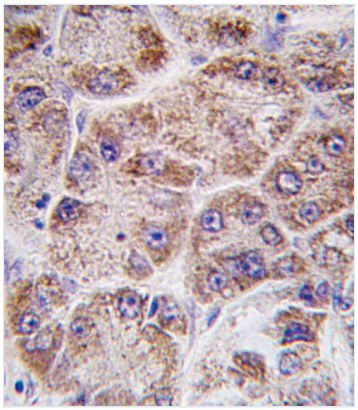
FDPS Antibody – Rabbit Polyclonal

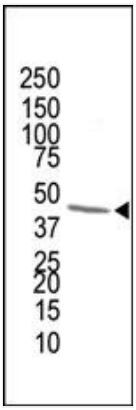
PRODUCT OVERVIEW

Product Name	FDPS, Polyclonal Antibody
Full Product Name	FDPS Antibody (Center)
Product Gene Name	anti-FDPS antibody
Product Synonym Names	Farnesyl pyrophosphate synthase; FPP synthase; FPS; (2E,6E)-farnesyl diphosphate synthase; Dimethylallyltranstransferase; Farnesyl diphosphate synthase; Geranyltranstransferase; FDPS; FPS; KIAA1293
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 2 (lot specific)
Specificity	This FDPS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 389-419 amino acids from the center region of human FDPS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	FDPS peptide (MBS9224671) is used for blocking the activity of FDPS antibody (MBS9206491)
Molecular Weight	48275
Immunogen Sequence Positions	389-419
OMIM	134629
3D Structure	ModBase 3D Structure for P14324
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-FDPS antibody	Cancer; Cardiovascular; Metabolism; Signal transduction
Applications Tested/Suitable for anti-FDPS antibody	ELISA (EIA), Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-FDPS antibody	IHC~~1:10~50 WB~~1:1000
Related Product Information for anti-FDPS antibody	The isoprene biosynthetic pathway supply the cell with cholesterol, ubiquinone, and various nonsterol metabolites. The farnesylpyrophosphate synthetase enzyme catalyzes the formation of geranyl and farnesylpyrophosphate from isopentenylpyrophosphate and dimethylallyl pyrophosphate. Analysis of FDPS activity and protein in rat liver, accompanied by immunofluorescence and immunoelectron microscopy studies, demonstrated that FDPS is predominantly localized in peroxisomes.1 Liver tissue from patients with the peroxisomal deficiency diseases Zellweger syndrome and neonatal adrenoleukodystrophy exhibit diminished activities of FDPS and subsequent isoprenoid synthesis.

Product References and Citations for anti-FDPS antibody	Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Nomura, N., et al., DNA Res. 1(1):27-35 (1994). Wilkin, D.J., et al., J. Biol. Chem. 265(8):4607-4614 (1990). Sheares, B.T., et al., Biochemistry 28(20):8129-8135 (1989).
Other Notes	Small volumes of anti-FDPS antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for FDPS purchase	MBS9206491 is an antibody targeting FDPS. Also known as FDPS Antibody (Center). Reactive in Human. Host: Rabbit.



Immunohistochemistry (IHC) of anti-FDPS antibody
Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with FDPS antibody (Center) , which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Western Blot (WB) of anti-FDPS antibody
The anti-FDPS Pab is used in Western blot to detect FDPS in human cytokeratin liver cell lysate. Data is kindly provided by Dr. Masaru Harada from Stanford University (Palo Alto, CA).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FDPS. It may not necessarily be applicable to this product.

NCBI GI #	209571582
NCBI GeneID	2224
NCBI Accession #	NP_001129293.1
NCBI Related Accession #	NP_001129294.1; NP_001229753.1; NP_001229754.1; NP_001995.1
UniProt Primary Accession #	P14324
UniProt Secondary Accession #	Q96G29; D3DV91; E9PCI9
UniProt Related Accession #	P14324
GenBank Nucleotide #	NM_001135821.1
NCBI Official Full Name	farnesyl pyrophosphate synthase isoform a
NCBI Official Synonym Full Names	farnesyl diphosphate synthase
NCBI Official Symbol	FDPS
NCBI Official Synonym Symbols	FPS; FPPS
UniProt Protein Name	Farnesyl pyrophosphate synthase
UniProt Synonym Protein Names	(2E,6E)-farnesyl diphosphate synthase; Dimethylallyltranstransferase (EC:2.5.1.1); Farnesyl diphosphate synthase; Geranyltranstransferase
Protein Family	Farnesyl pyrophosphate synthase
UniProt Gene Name	FDPS

UniProt Synonym Gene Names	FPS; KIAA1293; FPP synthase; FPS
UniProt Entry Name	FPPS_HUMAN
NCBI Protein Information	farnesyl pyrophosphate synthase
NCBI Summary for FDPS	This gene encodes an enzyme that catalyzes the production of geranyl pyrophosphate and farnesyl pyrophosphate from isopentenyl pyrophosphate and dimethylallyl pyrophosphate. The resulting product, farnesyl pyrophosphate, is a key intermediate in cholesterol and sterol biosynthesis, a substrate for protein farnesylation and geranylgeranylation, and a ligand or agonist for certain hormone receptors and growth receptors. Drugs that inhibit this enzyme prevent the post-translational modifications of small GTPases and have been used to treat diseases related to bone resorption. Multiple pseudogenes have been found on chromosomes 1, 7, 14, 15, 21 and X. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2008]
UniProt Comments for FDPS	FDPS: Key enzyme in isoprenoid biosynthesis which catalyzes the formation of farnesyl diphosphate (FPP), a precursor for several classes of essential metabolites including sterols, dolichols, carotenoids, and ubiquinones. FPP also serves as substrate for protein farnesylation and geranylgeranylation. Catalyzes the sequential condensation of isopentenyl pyrophosphate with the allylic pyrophosphates, dimethylallyl pyrophosphate, and then with the resultant geranylpyrophosphate to the ultimate product farnesyl pyrophosphate. Belongs to the FPP/GGPP synthase family. Protein type: EC 2.5.1.1; Motility/polarity/chemotaxis; Secondary Metabolites Metabolism - terpenoid backbone biosynthesis; Transferase; EC 2.5.1.10 Chromosomal Location of Human Ortholog: 1q22 Cellular Component: nucleoplasm; mitochondrion; cytoplasm; cytosol Molecular Function: geranyltranstransferase activity; dimethylallyltranstransferase activity; metal ion binding Biological Process: viral reproduction; geranyl diphosphate biosynthetic process; farnesyl diphosphate biosynthetic process; cholesterol biosynthetic process
Research Articles on FDPS	**1.** our study indicated that DR patients have higher VEGF levels than diabetic patients without retinopathy, and -2578A/C (rs699947) and +405C/G (rs2010963) may be important factors in determining serum VEGF levels.
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