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FDPS Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14864a

Product Information

Application	WB, E
Primary Accession	P14324
Other Accession	NP_001129293.1, NP_001129294.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35005
Calculated MW	48275
Antigen Region	54-82

Additional Information

Gene ID	2224
Other Names	Farnesyl pyrophosphate synthase, FPP synthase, FPS, (2E, 6E)-farnesyl diphosphate synthase, Dimethylallyltranstransferase, Farnesyl diphosphate synthase, Geranyltranstransferase, FDPS, FPS, KIAA1293
Target/Specificity	This FDPS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 54-82 amino acids from the N-terminal region of human FDPS.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FDPS Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FDPS (HGNC:3631)
Synonyms	FPS, KIAA1293

Function	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.
Cellular Location	Cytoplasm.

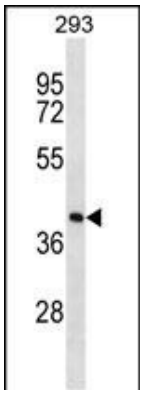
Background

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.

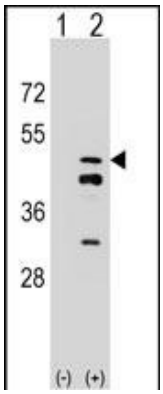
References

Ishimoto, K., et al. Biochem. J. 429(2):347-357(2010)
Choi, H.J., et al. Yonsei Med. J. 51(2):231-238(2010)
Li, J., et al. J. Immunol. 182(12):8118-8124(2009)
Romanelli, M.G., et al. Genomics 93(3):227-234(2009)
Marini, F., et al. Curr Med Res Opin 24(9):2609-2615(2008)

Images



FDPS Antibody (N-term) (Cat. #AP14864a) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the FDPS antibody detected the FDPS protein (arrow).



Western blot analysis of FDPS (arrow) using rabbit polyclonal FDPS Antibody (N-term) (Cat. #AP14864a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the FDPS gene.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.