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FDPS Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2418A

Specification

FDPS Antibody (N-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	P14324
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**82-112**

FDPS Antibody (N-term) - 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 82-112 amino acids from the N-terminal region of human FDPS.

Dilution
IF~~1:100
WB~~1:1000
IHC-P~~1:50~100

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.

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.

FDPS Antibody (N-term) - 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.

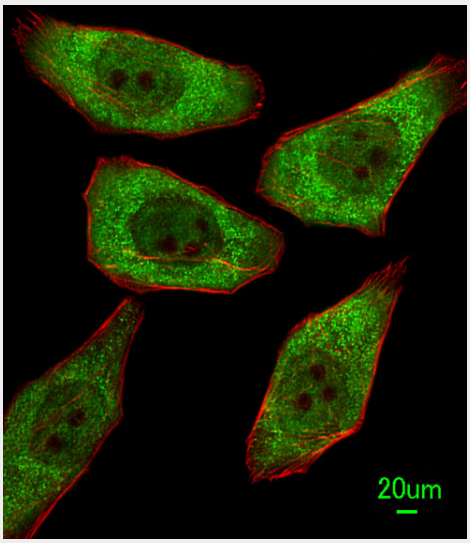
Cellular Location
Cytoplasm.

FDPS Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FDPS Antibody (N-term) - Images



Immunofluorescent analysis of A549 cells, using FDPS Antibody (N-term) (Cat. #AP2418a). AP2418a was diluted at 1:100 dilution. Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Dylight Fluor® 554 (red) conjugated Phalloidin (red).

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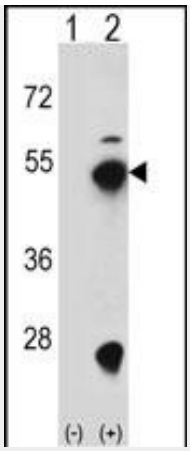
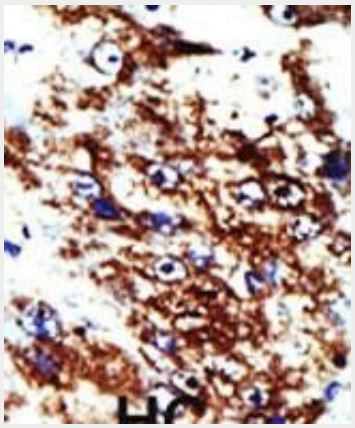


Western blot analysis of FDPS (arrow) using rabbit polyclonal FDPS Antibody (D31) (Cat. #AP2418a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the FDPS gene.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, 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. BC = breast carcinoma; HC = hepatocarcinoma.

FDPS Antibody (N-term) - Background

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.

FDPS Antibody (N-term) - References

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).