

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

### Specification

#### FDPS Antibody (N-term) - Product Information

Application	IF, IHC-P, WB,E
Primary Accession	<a href="#">P14324</a>
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  
IHC-P~~~1:50~100  
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 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 geranylgerylation. 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.

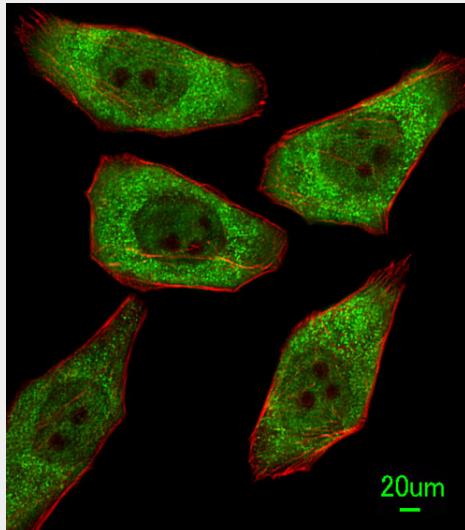
**Cellular Location**

Cytoplasm.

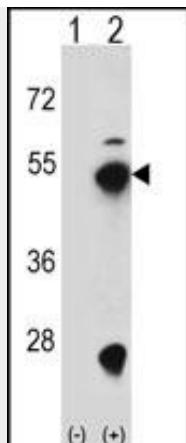
**FDPS Antibody (N-term) - Protocols**

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

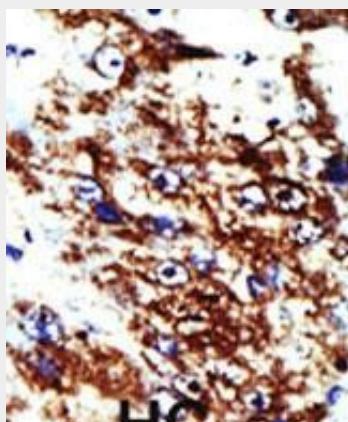
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**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 IgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Dylight Fluor® 554 (red) conjugated Phalloidin (red).



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 immunolectron microscopy studies, demonstrated that FDPS is predominantly localized in peroxisomes.<sup>1</sup> 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).