

Anti-FDPS Antibody (8F434)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8F434
Purification:	Protein A

Applications

1. Immunofluorescence staining of Human FDPS in HUVEC cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human FDPS monoclonal antibody (1:60) at 37°C 1 hour. Then cells were stained with the Alexa Fluor® 488-conjugated goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to cytoplasm.

2. Flow cytometric analysis of Human FDPS expression on HeLa cells. The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with purified anti-Human FDPS, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

3. Anti-FDPS rabbit monoclonal antibody at 1:500 dilution.

-Lane A: HepG2 Whole Cell Lysate.

-Lane B: HeLa Whole Cell lysate.

-Lysates/proteins at 30 µg per lane.

-Secondary

-Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution.

Verified Activity: -Developed using the Odyssey technique.

-Performed under reducing conditions.

-Predicted band size:48 kDa.

-Observed band size:38 kDa.

4. FDPS was immunoprecipitated using:

-Lane A:0.5 mg HeLa Whole Cell Lysate.

-Lane B:0.5 mg HepG2 Whole Cell Lysate.

-Lane C:0.5 mg A549 Whole Cell Lysate.

-2 µL anti-FDPS rabbit monoclonal antibody and 15 µl of 50 % Protein G agarose.

-Primary antibody:

-Anti-FDPS rabbit monoclonal antibody, at 1:100 dilution.

-Secondary antibody:

-Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution.

-Developed using the odyssey technique.

-Performed under reducing conditions.

-Predicted band size: 48 kDa.

-Observed band size: 38 kDa

A DRUG SCREENING EXPERT

Application: ELISA,FCM,ICC/IF,IP,WB
Recommended WB: 1:500-1:2000; ELISA: 1:5000-1:10000; ICC-IF: 1:20-1:100; FCM: 1:25-1:100; IP: 1-4 µL/mg of lysate

Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: Human FDPS / Farnesyl Diphosphate Synthase protein (TMPY-02654)
Antigen Species: Human
Synonyms: FPS;FPPS;Farnesyl pyrophosphate synthase

Research Background

Z-farnesyl diphosphate synthase (FDPS) is an enzyme belonging to the family of transferases, specifically those transferring aryl or alkyl groups other than methyl groups. Z-farnesyl diphosphate synthase (FDPS) functions as key enzyme in isoprenoid biosynthesis which catalyzes the formation of farnesyl diphosphate, a precursor for several classes of essential metabolites. FDPS 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. Functions of FDPS may be inactivated by interferon-induced RSAD2. This inactivation may result of disruption of lipid rafts at the plasma membrane, and thus have an antiviral effect since many enveloped viruses need lipid rafts to bud efficiently out of the cell.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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