10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GGPS1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2419B

Product Information

Application	WB, IHC-P, E
Primary Accession	O95749
Other Accession	NP_004828
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	34871
Antigen Region	270-300

Additional Information

Gene ID	9453
Other Names	Geranylgeranyl pyrophosphate synthase, GGPP synthase, GGPPSase, 251-, (2E, 6E)-farnesyl diphosphate synthase, Dimethylallyltranstransferase, Farnesyl diphosphate synthase, Farnesyltranstransferase, Geranylgeranyl diphosphate synthase, Geranyltranstransferase, GGPS1
Target/Specificity	This GGPS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 270-300 amino acids from the C-terminal region of human GGPS1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	GGPS1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GGPS1
Function	Catalyzes the trans-addition of the three molecules of IPP onto DMAPP to

	form geranylgeranyl pyrophosphate, an important precursor of carotenoids and geranylated proteins.
Cellular Location	Cytoplasm. Cytoplasm, perinuclear region. Cytoplasm, myofibril, sarcomere, Z line
Tissue Location	Abundantly expressed in testis (PubMed:10026212, PubMed:9741684). Found in other tissues to a lower extent (PubMed:10026212, PubMed:9741684). Expressed in dermal fibroblast and skeletal muscle (PubMed:32403198).

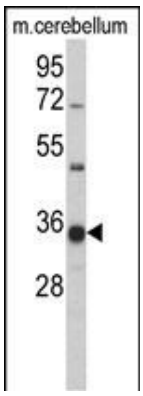
Background

Geranylgeranyl diphosphate (GGPP) synthase (GGPS) catalyzes the synthesis of GGPP, a molecule responsible for the C20-prenylation of protein and for the regulation of a nuclear hormone receptor. The deduced 300-amino acid human protein contains 5 conserved domains consistent with prenyltransferases. Recombinant GGPS shows enzymatic properties associated with the synthesis of GGPP from farnesyl diphosphate and isopentenyl diphosphate. Mouse GGPS is regulated in several tissues in obesity and is induced during adipocyte differentiation. GGPS is increased 5- to 20-fold in skeletal muscle, liver, and fat of ob/ob mice. Western blot analysis detects a 2-fold overexpression of protein in muscle and fat but not in liver. Differentiation of mouse fibroblasts into adipocytes induces GGPS expression more than 20-fold.

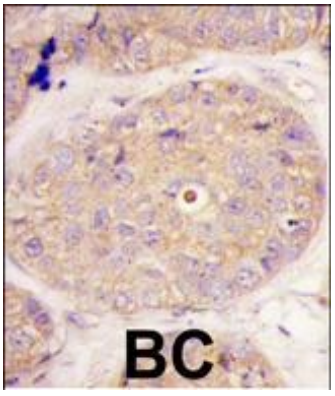
References

Kainou, T., et al., Biochim. Biophys. Acta 1437(3):333-340 (1999).
Kuzuguchi, T., et al., J. Biol. Chem. 274(9):5888-5894 (1999).
Ericsson, J., et al., J. Lipid Res. 39(9):1731-1739 (1998).

Images



Western blot analysis ofGGPS1 Antibody (C-term) (Cat. #AP2419b) in mouse cerbellum tissue lysates (35ug/lane). GGPS1 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with GGPS1 Antibody (C-term)(AP2419b), 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.

Citations

- Quantitative proteomics analysis of inborn errors of cholesterol synthesis: identification of altered metabolic pathways in DHCR7 and SC5D deficiency.

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