

# GGPS1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2419B

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">O95749</a>
<b>Other Accession</b>	<a href="#">NP_004828</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	34871
<b>Antigen Region</b>	270-300

## Additional Information

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<b>Gene ID</b>	9453
<b>Other Names</b>	Geranylgeranyl pyrophosphate synthase, GGPP synthase, GGPPSase, 251-, (2E, 6E)-farnesyl diphosphate synthase, Dimethylallyltranstransferase, Farnesyl diphosphate synthase, Farnesyltranstransferase, Geranylgeranyl diphosphate synthase, Geranyltranstransferase, GGPS1
<b>Target/Specificity</b>	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.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	GGPS1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	GGPS1
<b>Function</b>	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

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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.

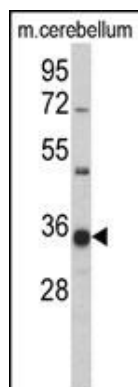
## References

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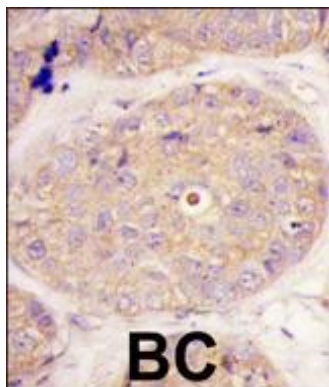
Kainou, T., et al., Biochim. Biophys. Acta 1437(3):333-340 (1999).  
Kuzuguchi, T., et al., J. Biol. Chem. 274(9):5888-5894 (1999).  
Ericsson, J., et al., J. Lipid Res. 39(9):1731-1739 (1998).

## Images

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Western blot analysis of GGPS1 Antibody (C-term) (Cat. #AP2419b) in mouse cerebellum 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

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- [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'.