

GGPS1 (E-14): sc-161640

BACKGROUND

GGPS1 (geranylgeranyl diphosphate synthase 1), also known as GGPPS, GGPPSase (geranylgeranyl pyrophosphate synthetase) or GGPPS1, is a member of the FPP/GGPP synthetase family of *trans*-prenyltransferases. Predominantly expressed in testis, heart and skeletal muscle, GGPS1 localizes to the cytoplasm and catalyzes the formation of geranylgeranyl pyrophosphate (GGPP), a precursor of geranylgeranylated proteins and carotenoids. GGPP is a major isoprenoid responsible for the C20-prenylation of proteins and the regulation of the nuclear hormone receptor LXR α . More specifically, GGPS1 functions as an oligomeric molecule and mediates the condensation of farnesyl diphosphate (FPP) with isopentenyl diphosphate to yield GGPP. GGPS1 contains five amino acid motifs that are conserved in *trans*-prenyltransferases and three potential N-glycosylation sites.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GGPS1 (human) mapping to 1q42.3; Ggps1 (mouse) mapping to 13 A1.

SOURCE

GGPS1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GGPS1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161640 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GGPS1 (E-14) is recommended for detection of GGPS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GGPS1 siRNA (h): sc-88605, GGPS1 siRNA (m): sc-145390, GGPS1 shRNA Plasmid (h): sc-88605-SH, GGPS1 shRNA Plasmid (m): sc-145390-SH, GGPS1 shRNA (h) Lentiviral Particles: sc-88605-V and GGPS1 shRNA (m) Lentiviral Particles: sc-145390-V.

Molecular Weight of GGPS1 monomer: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **GGPS1 (E-1): sc-271680** or **GGPS1 (B-2): sc-271679**, our highly recommended monoclonal alternatives to GGPS1 (E-14).