

PGS1 (F-14): sc-136800

BACKGROUND

PGS1 (phosphatidylglycerophosphate synthase 1) is a 556 amino acid mitochondrial protein belonging to the CDP-alcohol phosphatidyltransferase class-II family and consists of 2 PLD phosphodiesterase domains. Activated by calcium and magnesium and inhibited by other bivalent cations, PGS1 participates in the biosynthesis of phosphatidylglycerol and cardiolipin. PGS1 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PGS1 (human) mapping to 17q25.3; Pgs1 (mouse) mapping to 11 E2.

SOURCE

PGS1 (F-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PGS1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-136800 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PGS1 (F-14) is recommended for detection of PGS1 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); non cross-reactive with other PGS family members.

PGS1 (F-14) is also recommended for detection of PGS1 in additional species, including bovine.

Suitable for use as control antibody for PGS1 siRNA (h): sc-94116, PGS1 siRNA (m): sc-152196, PGS1 shRNA Plasmid (h): sc-94116-SH, PGS1 shRNA Plasmid (m): sc-152196-SH, PGS1 shRNA (h) Lentiviral Particles: sc-94116-V and PGS1 shRNA (m) Lentiviral Particles: sc-152196-V.

Molecular Weight of PGS1: 63 kDa.

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.