

PGE synthase (S-16): sc-12268

BACKGROUND

Prostaglandin E synthase (PGE synthase), also known as PIG12 and MGST1-L1, is a member of protein super family MAPEG, which consists of membrane associated proteins involved in eicosanoid and glutathione metabolism. The expression of this membrane-associated protein can be induced by the proinflammatory cytokine, IL-1 β . PGE synthase is expressed in seminal vesicles, deferent ducts, kidney, heart and spleen. The enzyme activity of PGE synthase in most organs is glutathione-dependent. PGE synthase may play a significant role in the progression of Alzheimer's disease. Human PGE synthase is localized to chromosome 9q34.11.

REFERENCES

- Ogino, N., et al. 1977. Prostaglandin endoperoxide E isomerase from bovine vesicular gland microsomes, a glutathione-requiring enzyme. *J. Biol. Chem.* 252: 890-895.
- Tanaka, Y., et al. 1987. Immunochemical and kinetic evidence for two different prostaglandin H-prostaglandin E isomerases in sheep vesicular gland microsomes. *J. Biol. Chem.* 262: 1374-1381.
- Watanabe, K., et al. 1997. Two types of microsomal prostaglandin E synthase: glutathione-dependent and -independent Prostaglandin E Synthases. *Biochem. Biophys. Res. Commun.* 235: 148-152.
- Jakobsson, P.J., et al. 1999. Common structural features of MAPEG—a wide-spread superfamily of membrane associated proteins with highly divergent functions in eicosanoid and glutathione metabolism. *Protein Sci.* 8: 689-692.
- Jakobsson, P.J., et al. 1999. Identification of human Prostaglandin E synthase: a microsomal, glutathione-dependent, inducible enzyme, constituting a potential novel drug target. *Proc. Natl. Acad. Sci. USA* 96: 7220-7225.
- Forsberg, L., et al. 2000. Human glutathione dependent Prostaglandin E synthase: gene structure and regulation. *FEBS Lett.* 471: 78-82.

CHROMOSOMAL LOCATION

Genetic locus: PTGES (human) mapping to 9q34.11; Ptges (mouse) mapping to 2 B.

SOURCE

PGE synthase (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PGE synthase 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-12268 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

PGE synthase (S-16) is recommended for detection of PGE synthase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

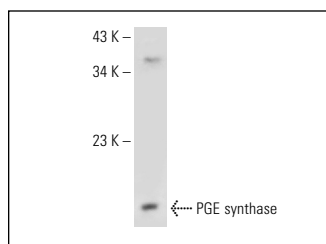
PGE synthase (S-16) is also recommended for detection of PGE synthase in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PGE synthase siRNA (h): sc-41642, PGE synthase siRNA (m): sc-41643, PGE synthase shRNA Plasmid (h): sc-41642-SH, PGE synthase shRNA Plasmid (m): sc-41643-SH, PGE synthase shRNA (h) Lentiviral Particles: sc-41642-V and PGE synthase shRNA (m) Lentiviral Particles: sc-41643-V.

Molecular Weight of PGE synthase: 17 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-87 MG cell lysate: sc-2411 or Caki-1 cell lysate: sc-2224.

DATA



PGE synthase (S-16): sc-12268. Western blot analysis of PGE synthase expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

- Accioli, M.T., et al. 2008. Lipid bodies are reservoirs of cyclooxygenase-2 and sites of prostaglandin-E2 synthesis in colon cancer cells. *Cancer Res.* 68: 1732-1740.

STORAGE

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

PROTOCOLS

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


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Try **PGE synthase (A-3): sc-166308** or **PGE synthase (B-6): sc-166309**, our highly recommended monoclonal alternatives to PGE synthase (S-16).