

PGE synthase (h): 293T Lysate: sc-158844

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

1. Ogino, N., et al. 1977. Prostaglandin endoperoxide E isomerase from bovine vesicular gland microsomes, a glutathione-requiring enzyme. *J. Biol. Chem.* 252: 890-895.
2. 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.
3. 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.
4. Jakobsson, P.J., et al. 1999. Common structural features of MAPEG—a widespread superfamily of membrane associated proteins with highly divergent functions in eicosanoid and glutathione metabolism. *Protein Sci.* 8: 689-692.
5. 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.
6. 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.

PRODUCT

PGE synthase (h): 293T Lysate represents a lysate of human PGE synthase transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PGE synthase (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PGE synthase antibodies. Recommended use: 10-20 μ l per lane.

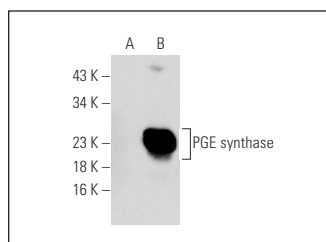
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PGE synthase (A-3): sc-166308 is recommended as a positive control antibody for Western Blot analysis of enhanced human PGE synthase expression in PGE synthase transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

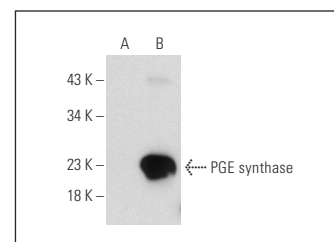
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PGE synthase (A-3): sc-166308. Western blot analysis of PGE synthase expression in non-transfected: sc-117752 (A) and human PGE synthase transfected: sc-158844 (B) 293T whole cell lysates.



PGE synthase (B-6): sc-166309. Western blot analysis of PGE synthase expression in non-transfected: sc-117752 (A) and human PGE synthase transfected: sc-158844 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.