

PGE synthase 2 (L-12): sc-160662

BACKGROUND

PGE synthase 2, also known as PTGES2, PGES2, prostaglandin E synthase 2, microsomal prostaglandin E synthase 2 (mPGES-2) or GATE-binding factor-1 (GBF1), is a 377 amino acid isomerase that belongs to the GST superfamily and catalyzes the conversion of Prostaglandin H₂ to Prostaglandin E₂. Synthesized as a single-pass membrane protein of the golgi apparatus, PGE synthase 2 becomes cleaved to form a soluble truncated form which is enriched in the perinuclear region. Overexpressed in colorectal cancer, PGE synthase 2 is widely expressed with high levels found in liver, kidney, heart and brain, and may activate IFN- γ transcriptional activity. Containing a glutaredoxin domain and a GST C-terminal domain, PGE synthase 2 exists as a homodimer that interacts with both EXOSC10 and C/EBP β , and is known to bind dihydroliipoic acid as a cofactor.

REFERENCES

1. Tanikawa, N., et al. 2002. Identification and characterization of a novel type of membrane-associated prostaglandin E synthase. *Biochem. Biophys. Res. Commun.* 291: 884-889.
2. Hu, J., et al. 2002. A novel transactivating factor that regulates interferon- γ -dependent gene expression. *J. Biol. Chem.* 277: 30253-30263.
3. Murakami, M., et al. 2003. Cellular prostaglandin E₂ production by membrane-bound prostaglandin E synthase-2 via both cyclooxygenases-1 and -2. *J. Biol. Chem.* 278: 37937-37947.
4. Nitz, I., et al. 2007. Association of prostaglandin E synthase 2 (PTGES2) Arg298His polymorphism with type 2 diabetes in two German study populations. *J. Clin. Endocrinol. Metab.* 92: 3183-3188.
5. Lindner, I., et al. 2007. Prostaglandin E synthase 2 (PTGES2) Arg298His polymorphism and parameters of the metabolic syndrome. *Mol. Nutr. Food Res.* 51: 1447-1451.
6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 608152. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: PTGES2 (human) mapping to 9q34.11; Ptg2 (mouse) mapping to 2 B.

SOURCE

PGE synthase 2 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of PGE synthase 2 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-160662 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PGE synthase 2 (L-12) is recommended for detection of PGE synthase 2 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); non cross-reactive with PGE synthase.

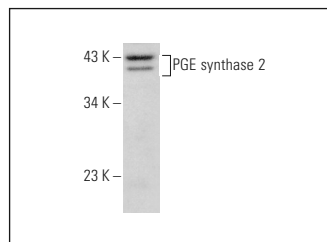
PGE synthase 2 (L-12) is also recommended for detection of PGE synthase 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PGE synthase 2 siRNA (h): sc-92841, PGE synthase 2 siRNA (m): sc-152189, PGE synthase 2 shRNA Plasmid (h): sc-92841-SH, PGE synthase 2 shRNA Plasmid (m): sc-152189-SH, PGE synthase 2 shRNA (h) Lentiviral Particles: sc-92841-V and PGE synthase 2 shRNA (m) Lentiviral Particles: sc-152189-V.

Molecular Weight of PGE synthase 2: 42 kDa.

Positive Control: SK-OV-3 whole cell lysate: sc-364229.

DATA



PGE synthase 2 (L-12): sc-160662. Western blot analysis of PGE synthase 2 expression in SK-BR-3 whole cell lysate.

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.


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Try **PGE synthase 2 (A-2): sc-514224**, our highly recommended monoclonal alternative to PGE synthase 2 (L-12).