**BACKGROUND**

Prostaglandin E synthase (PGE synthase), also known as PG12 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-1β. 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.

**CHROMOSOMAL LOCATION**

Genetic locus: PTGES (human) mapping to 9q34.11.

**SOURCE**

PGE synthase (A-3) is a mouse monoclonal antibody raised against amino acids 1-152 representing full length PGE synthase of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. PGE synthase (A-3) is available conjugated to agarose (sc-166308 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166308 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166308 PE), fluorescein (sc-166308 FITC), Alexa Fluor® 488 (sc-166308 AF488), Alexa Fluor® 546 (sc-166308 AF546), Alexa Fluor® 594 (sc-166308 AF594) or Alexa Fluor® 647 (sc-166308 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166308 AF680) or Alexa Fluor® 790 (sc-166308 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

PGE synthase (A-3) is recommended for detection of PGE synthase of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:10000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 PGE synthase shRNA (h): sc-41642, PGE synthase shRNA Plasmid (h): sc-41642-SH and PGE synthase shRNA (h) Lentiviral Particles: sc-41642-V.

Molecular Weight of PGE synthase: 17 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, Caci-1 cell lysate: sc-2224 or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2030 (0.5 ml agarose/2.0 ml).


**DATA**

- **PGE synthase (A-3): sc-166308.** Immunofluorescence western blot analysis of PGE synthase expression in U-87 MG (A), Caki-1 (B) and HeLa (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516124. Detection reagent used: m-IgGκ BP-FL 680: sc-516180.

**SELECT PRODUCT CITATIONS**


**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.