**BACKGROUND**

Prostacyclin (also known as prostaglandin I2) is a potent vasodilator and inhibitor of platelet aggregation. The enzyme PG12 synthase (also known as prostacyclin synthase) catalyzes the isomerization of prostaglandin H2 (PGH2) to prostacyclin. Although it has absorbance spectral features characteristic of the cytochrome P450s, PG12 has no monooxygenase activity and does not require an external source of electrons to initiate its enzyme reaction. PG12 synthase is the single member of family 8 of the cytochrome P450 superfamily. PG12 synthase is a polypeptide of 500 amino acids with sequence homology to cholesterol 7-α-monooxygenase, a member of the CYP7 family of cytochrome P450s. The gene which encodes PG12 synthase maps to human chromosome 20q13.13.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PTGIS (human) mapping to 20q13.13; Ptgis (mouse) mapping to 2H3.

**SOURCE**

PG12 synthase (H-250) is a rabbit polyclonal antibody raised against amino acids 41-290 mapping near the N-terminus of PG12 synthase 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.

**APPLICATIONS**

PG12 synthase (H-250) is recommended for detection of PG12 synthase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PG12 synthase (H-250) is also recommended for detection of PG12 synthase in additional species, including equine, canine, bovine and porcine.


Molecular Weight of PG12 synthase: 52 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810.

**STORAGE**

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

**DATA**

![Western blot analysis of PG12 synthase expression in rat skeletal muscle tissue extract.](image1)

![Immunoperoxidase staining of formalin fixed, paraffin-embedded human urothelial cancer tissue showing cytoplasmic staining of tumor cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.](image2)

**SELECT PRODUCT CITATIONS**


**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.

**MONOSATISFACTION GUARANTEED**

Try PG12 synthase (3B11): sc-293247, our highly recommended monoclonal alternative to PG12 synthase (H-250).