

PGDH (FL-266): sc-98907

BACKGROUND

Prostaglandins are implicated in many physiologic and cellular processes, such as inflammation. NAD⁺-dependent 15-hydroxyprostaglandin dehydrogenase (PGDH) is the fundamental enzyme of prostaglandin degradation. PGDH, a ubiquitous enzyme, strongly reduces the biologic activity of these molecules by catalyzing the oxidation of the 15-hydroxyl group of prostaglandins to a keto group. Cortisol reduces PGDH activity in human placental cells. 11- β -hydroxysteroid dehydrogenase type II (HSD11B2) converts cortisol to cortisone. In preeclampsia, a disorder characterized by high blood pressure and protein in the urine during pregnancy and the postpartum period, HSD11B2 mRNA expression is reduced, leading to a decrease in HSD11B2 activity. Therefore, the diminished conversion of placental cortisol may lead to reduced PGDH mRNA expression by means of an autocrine or paracrine mechanism.

CHROMOSOMAL LOCATION

Genetic locus: HPGD (human) mapping to 4q34.1; Hpgd (mouse) mapping to 8 B2.

SOURCE

PGDH (FL-266) is a rabbit polyclonal antibody raised against amino acids 1-263 of PGDH 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.

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.

APPLICATIONS

PGDH (FL-266) is recommended for detection of PGDH 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), 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).

PGDH (FL-266) is also recommended for detection of PGDH in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PGDH siRNA (h): sc-61330, PGDH siRNA (m): sc-61331, PGDH shRNA Plasmid (h): sc-61330-SH, PGDH shRNA Plasmid (m): sc-61331-SH, PGDH shRNA (h) Lentiviral Particles: sc-61330-V and PGDH shRNA (m) Lentiviral Particles: sc-61331-V.

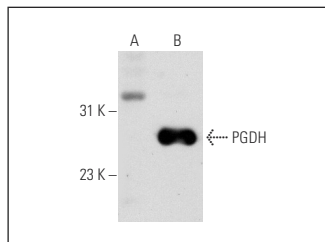
Molecular Weight of PGDH: 30 kDa.

Positive Controls: PGDH (m): 293T Lysate: sc-122517.

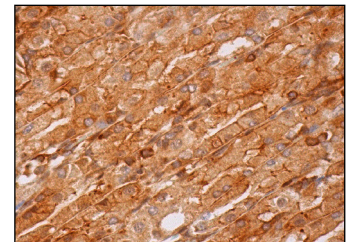
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PGDH (FL-266): sc-98907. Western blot analysis of PGDH expression in non-transfected: sc-117752 (A) and mouse PGDH transfected: sc-122517 (B) 293T whole cell lysates.



PGDH (FL-266): sc-98907. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic, membrane and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Shirode, A.B. and Sylvester, P.W. 2010. Synergistic anticancer effects of combined γ -tocotrienol and celecoxib treatment are associated with suppression in Akt and NF κ B signaling. *Biomed. Pharmacother.* 64: 327-332.
- Shirode, A.B. and Sylvester, P.W. 2011. Mechanisms mediating the synergistic anticancer effects of combined γ -tocotrienol and celecoxib treatment. *J. Bioanal. Biomed.* 3: 1-7.

PROTOCOLS

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



Try **PGDH (H-3): sc-271418**, our highly recommended monoclonal alternative to PGDH (FL-266).