**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, an 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 proteinuria 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

PGDH (H-3) is a mouse monoclonal antibody raised against amino acids 1-263 of PGDH of human origin.

**PRODUCT**

Each vial contains 200 µg IgG; kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PGDH (H-3) is available conjugated to agarose [sc-271418 AC], 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271418 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271418 PE), fluorescein (sc-271418 FITC), Alexa Fluor® 488 (sc-271418 AF488), Alexa Fluor® 546 (sc-271418 AF546), Alexa Fluor® 594 (sc-271418 AF594) or Alexa Fluor® 647 (sc-271418 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271418 AF680) or Alexa Fluor® 790 (sc-271418 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

**APPLICATIONS**

PGDH (H-3) is recommended for detection of PGDH of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 siRNA (h) Lentiviral Particles: sc-61330-V and PGDH shRNA (m) Lentiviral Particles: sc-61331-V.

Molecular Weight of PGDH: 30 kDa.

Positive Controls: A549 cell lysate: sc-2413 or human placenta extract: sc-363772.

**DATA**

PGDH (H-3): sc-271418. Near-infrared western blot analysis of PGDH expression in A549 whole cell lysate (A) and human placenta tissue extract (B). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG4, BP-OFL 600: sc-516180.

PGDH (H-3): sc-271418. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and nuclear staining of urothelial cells.

**SELECT PRODUCT CITATIONS**


**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 for detailed protocols and support products.