

PGRMC2 (F-3): sc-374624



The Power to Question

BACKGROUND

PGRMC2 (progesterone receptor membrane component 2), also known as DG6 (steroid receptor protein DG6) or PMBP (progesterone membrane-binding protein), is a single pass membrane protein belonging to the cytochrome b5 family (MAPR (membrane associated progesterone receptor) subfamily). Expressed in sperm, PGRMC2 is believed to function as a steroid receptor and may participate in the progesterone-dependent sperm acrosome reaction. PGRMC2 shares approximately 50% overall sequence identity with its close relative PGRMC1. The loss of the gene encoding PGRMC2 is associated with metastasis in uterine endocervical adenocarcinomas, implicating a potential role of PGRMC2 in the suppression of metastasis of endocervical adenocarcinomas.

CHROMOSOMAL LOCATION

Genetic locus: PGRMC2 (human) mapping to 4q28.2; Pgrmc2 (mouse) mapping to 3 B.

SOURCE

PGRMC2 (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-5 near the N-terminus of PGRMC2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PGRMC2 (F-3) is available conjugated to agarose (sc-374624 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374624 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374624 PE), fluorescein (sc-374624 FITC), Alexa Fluor® 488 (sc-374624 AF488), Alexa Fluor® 546 (sc-374624 AF546), Alexa Fluor® 594 (sc-374624 AF594) or Alexa Fluor® 647 (sc-374624 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374624 AF680) or Alexa Fluor® 790 (sc-374624 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PGRMC2 (F-3) is recommended for detection of PGRMC2 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), 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 PGRMC2 siRNA (h): sc-88944, PGRMC2 siRNA (m): sc-106403, PGRMC2 shRNA Plasmid (h): sc-88944-SH, PGRMC2 shRNA Plasmid (m): sc-106403-SH, PGRMC2 shRNA (h) Lentiviral Particles: sc-88944-V and PGRMC2 shRNA (m) Lentiviral Particles: sc-106403-V.

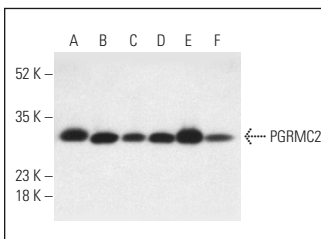
Molecular Weight of PGRMC2: 24 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, HeLa whole cell lysate: sc-2200 or Ca Ski whole cell lysate: sc-364360.

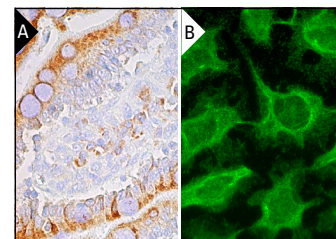
STORAGE

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

DATA



PGRMC2 (F-3): sc-374624. Western blot analysis of PGRMC2 expression in Caki-1 (A), HeLa (B), Ca Ski (C), BJ (D) and ARPE-19 (E) whole cell lysates and human placenta tissue extract (F). Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



PGRMC2 (F-3): sc-374624. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (A). Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Schumacher, M.M., et al. 2015. The prenyltransferase UBIAD1 is the target of geranylgeraniol in degradation of HMG CoA reductase. *Elife* 4: e05560.
- Juhlen, R., et al. 2016. Identification of a novel putative interaction partner of the nucleoporin ALADIN. *Biol. Open* 5: 1697-1705.
- Juhlen, R., et al. 2018. Triple A patient cells suffering from mitotic defects fail to localize PGRMC1 to mitotic kinetochore fibers. *Cell Div.* 13: 8.
- Binder, C., et al. 2021. Expression of nuclear progesterone receptor, progesterone receptor membrane components 1 and 2 and prostaglandin-endoperoxide synthase 2 in the endometrium and oviduct of spontaneously ovulating cats. *Theriogenology* 172: 200-206.
- Hanamuro, S., et al. 2021. Progesterone receptor membrane component 2 expression leads to erlotinib resistance in lung adenocarcinoma cells. *Pharmazie* 76: 602-605.
- Lee, S.K., et al. 2022. Metastasis enhancer PGRMC1 boosts store-operated Ca²⁺ entry by uncoiling Ca²⁺ sensor STIM1 for focal adhesion turnover and actomyosin formation. *Cell Rep.* 38: 110281.
- Islam, S., et al. 2024. Functional maturation of cytochromes P450 3A4 and 2D6 relies on GAPDH- and Hsp90-Dependent heme allocation. *J. Biol. Chem.* 300: 105633.

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.

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