

PGRMC1 (G-21): sc-133906

BACKGROUND

PGRMC1 (progesterone receptor membrane component 1), also known as MPR, is a 195 amino acid single-pass membrane protein that localizes to both the endoplasmic reticulum and to the microsome, and contains one cytochrome b5 heme-binding domain. Expressed in a variety of tissues with highest expression in kidney and liver, PGRMC1 functions as a receptor for progesterone, a steroid hormone that is involved in embryonic development and is crucial for proper female maturation. The gene encoding PGRMC1 maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination; an X and a Y chromosome lead to normal male development, while two copies of an X chromosome lead to normal female development. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

- Gerdes, D., et al. 1998. Cloning and tissue expression of two putative steroid membrane receptors. *Biol. Chem.* 379: 907-911.
- Bernauer, S., et al. 2001. The human membrane progesterone receptor gene: genomic structure and promoter analysis. *DNA Seq.* 12: 13-25.
- Online Mendelian Inheritance in Man, OMIM[™]. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 300435. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Lösel, R., et al. 2005. Classic and non-classic progesterone receptors are both expressed in human spermatozoa. *Horm. Metab. Res.* 37: 10-14.
- Nousiainen, M., et al. 2006. Phosphoproteome analysis of the human mitotic spindle. *Proc. Natl. Acad. Sci. USA* 103: 5391-5396.
- Hughes, A.L., et al. 2007. DAP-1/PGRMC1 binds and regulates cytochrome P450 enzymes. *Cell Metab.* 5: 143-149.
- Mansouri, M.R., et al. 2008. Alterations in the expression, structure and function of progesterone receptor membrane component-1 (PGRMC1) in premature ovarian failure. *Hum. Mol. Genet.* 17: 3776-3783.

CHROMOSOMAL LOCATION

Genetic locus: PGRMC1 (human) mapping to Xq24.

SOURCE

PGRMC1 (G-21) is an affinity purified rabbit polyclonal antibody raised against synthetic PGRMC1 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

PGRMC1 (G-21) is recommended for detection of PGRMC1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PGRMC1 siRNA (h): sc-76111, PGRMC1 shRNA Plasmid (h): sc-76111-SH and PGRMC1 shRNA (h) Lentiviral Particles: sc-76111-V.

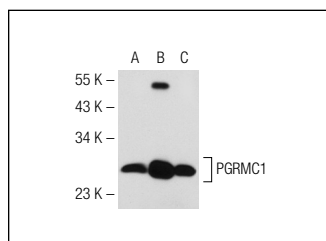
Molecular Weight of PGRMC1: 28 kDa.

Positive Controls: PGRMC1 (h): 293 Lysate: sc-113659, SK-BR-3 cell lysate: sc-2218 or Hep G2 cell lysate: sc-2227.

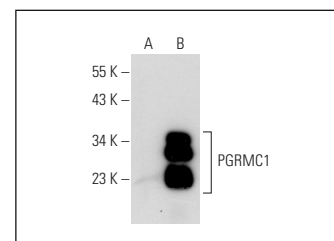
RECOMMENDED SECONDARY REAGENTS

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).

DATA



PGRMC1 (G-21): sc-133906. Western blot analysis of PGRMC1 expression in non-transfected 293T: sc-117752 (A), human PGRMC1 transfected 293T: sc-113659 (B) and SK-BR-3 (C) whole cell lysates.



PGRMC1 (G-21): sc-133906. Western blot analysis of PGRMC1 expression in non-transfected 293T and human PGRMC1 transfected: sc-171544 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Peluso, J.J., et al. 2012. Evidence for a genomic mechanism of action for progesterone receptor membrane component-1. *Steroids* 77: 1007-1012.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
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Try **PGRMC1 (C-4): sc-393015** or **PGRMC1 (C-3): sc-271275**, our highly recommended monoclonal alternatives to PGRMC1 (G-21).