

PGRMC1 (H-46): sc-98680

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 $\beta 5$ 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.

CHROMOSOMAL LOCATION

Genetic locus: PGRMC1 (human) mapping to Xq24; Pgrmc1 (mouse) mapping to X A3.3.

SOURCE

PGRMC1 (H-46) is a rabbit polyclonal antibody raised against amino acids 1-46 mapping at the N-terminus of PGRMC1 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98680 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

PGRMC1 (H-46) is recommended for detection of PGRMC1 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).

PGRMC1 (H-46) is also recommended for detection of PGRMC1 in additional species, including equine, canine, bovine and porcine.

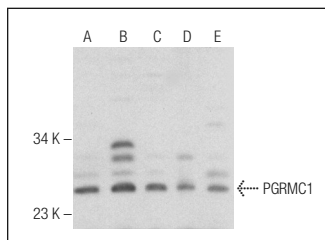
Suitable for use as control antibody for PGRMC1 siRNA (h): sc-76111, PGRMC1 siRNA (m): sc-76112, PGRMC1 shRNA Plasmid (h): sc-76111-SH, PGRMC1 shRNA Plasmid (m): sc-76112-SH, PGRMC1 shRNA (h) Lentiviral Particles: sc-76111-V and PGRMC1 shRNA (m) Lentiviral Particles: sc-76112-V.

PGRMC1 (H-46) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

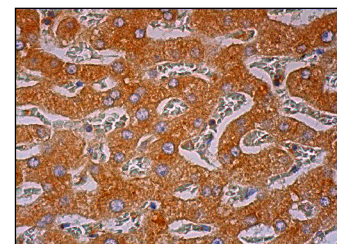
Molecular Weight of PGRMC1: 28 kDa.

Positive Controls: human liver extract: sc-363766, Hep G2 cell lysate: sc-2227 or SK-BR-3 cell lysate: sc-2218.

DATA



PGRMC1 (H-46): sc-98680. Western blot analysis of PGRMC1 expression in Hep G2 (A), SK-BR-3 (B) and MCF7 (C) whole cell lysates and rat liver (D) and human liver (E) tissue extracts.



PGRMC1 (H-46): sc-98680. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

- Lodde, V., et al. 2011. A novel role for progesterone and progesterone receptor membrane component 1 in regulating spindle microtubule stability during rat and human ovarian cell mitosis. *Biol. Reprod.* 84: 715-722.
- 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 (H-46).