PGRMC1 (h): 293T Lysate: sc-113659



The Power to Question

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., Wehling, M., Leube, B. and Falkenstein, E. 1998. Cloning and tissue expression of two putative steroid membrane receptors. Biol. Chem. 379: 907-911.
- Bernauer, S., Wehling, M., Gerdes, D. and Falkenstein, E. 2001. The human membrane progesterone receptor gene: genomic structure and promoter analysis. DNA Seq. 12: 13-25.
- 3. 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/
- 4. Lösel, R., Breiter, S., Seyfert, M., Wehling, M. and Falkenstein, E. 2005. Classic and non-classic progesterone receptors are both expressed in human spermatozoa. Horm. Metab. Res. 37: 10-14.
- Nousiainen, M., Silljé, H.H., Sauer, G., Nigg, E.A. and Körner, R. 2006. Phosphoproteome analysis of the human mitotic spindle. Proc. Natl. Acad. Sci. USA 103: 5391-5396.
- 6. Hughes, A.L., Powell, D.W., Bard, M., Eckstein, J., Barbuch, R., Link, A.J. and Espenshade, P.J. 2007. DAP-1/PGRMC1 binds and regulates cytochrome P450 enzymes. Cell Metab. 5: 143-149.
- Mansouri, M.R., Schuster, J., Badhai, J., Stattin, E.L., Lösel, R., Wehling, M., Carlsson, B., Hovatta, O., Karlström, P.O., Golovleva, I., Toniolo, D., Bione, S., Peluso, J. and Dahl, N. 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.
- Zhang, L., Kanda, Y., Roberts, D.J., Ecker, J.L., Losel, R., Wehling, M., Peluso, J.J. and Pru, J.K. 2008. Expression of progesterone receptor membrane component 1 and its partner serpine 1 mRNA binding protein in uterine and placental tissues of the mouse and human. Mol. Cell. Endocrinol. 287: 81-89.
- Lösel, R.M., Besong, D., Peluso, J.J. and Wehling, M. 2008. Progesterone receptor membrane component 1—many tasks for a versatile protein. Steroids 73: 929-934.

CHROMOSOMAL LOCATION

Genetic locus: PGRMC1 (human) mapping to Xq24.

PRODUCT

PGRMC1 (h): 293T Lysate represents a lysate of human PGRMC1 transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

PGRMC1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PGRMC1 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**