

mPR β (N-15): sc-50109

BACKGROUND

The steroid progesterone induces the resumption of maturation in oocytes via a nongenomic pathway through binding to a novel membrane progesterin receptor (mPR). This pathway inhibits adenylyl cyclase and reduces intracellular cAMP, and also activates mitogen-activated protein kinase to effect signal transduction pathways. Five distinct groups, designated α , β , γ , δ and ϵ , comprise the mPR gene family. mPR α , also designated progesterin and adipoQ receptor family member VII (PAQR7), consists of an extracellular N-terminus, an intracellular C-terminus and seven transmembrane domains. mPR α is expressed in ovary, testis, placenta, uterus and bladder. mPR β , or progesterin and adipoQ receptor family member VIII (PAQR8), consists of eight putative transmembrane regions and an intracellular N-terminus that contains a leucine-rich motif. mPR β is a 354 amino acid protein expressed in brain and spinal cord. Both mPR α and mPR β may be G protein-coupled receptors and may be involved in oocyte maturation.

REFERENCES

1. Suzuki, T., Ganesh, S., Agarwala, K.L., Morita, R., Sugimoto, Y., Inazawa, J., Delgado-Escueta, A.V. and Yamakawa, K. 2001. A novel gene in the chromosomal region for juvenile myoclonic epilepsy on 6p12 encodes a brain-specific lysosomal membrane protein. *Biochem. Biophys. Res. Commun.* 288: 626-636.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607779. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: PAQR8 (human) mapping to 6p12.2; Paqr8 (mouse) mapping to 1 A4.

SOURCE

mPR β (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of mPR β 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.

Blocking peptide available for competition studies, sc-50109 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

mPR β (N-15) is recommended for detection of mPR β 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

mPR β (N-15) is also recommended for detection of mPR β in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for mPR β siRNA (h): sc-61069, mPR β siRNA (m): sc-61070, mPR β shRNA Plasmid (h): sc-61069-SH, mPR β shRNA Plasmid (m): sc-61070-SH, mPR β shRNA (h) Lentiviral Particles: sc-61069-V and mPR β shRNA (m) Lentiviral Particles: sc-61070-V.

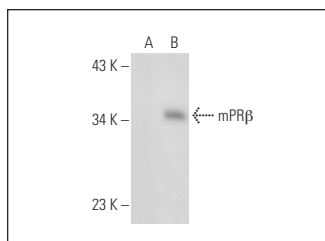
Molecular Weight of mPR β : 41 kDa.

Positive Controls: mPR β (h): 293T Lysate: sc-370976.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



mPR β (N-15): sc-50109. Western blot analysis of mPR β expression in non-transfected: sc-117752 (A) and human mPR β transfected: sc-370976 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Labombarda, F., Meffre, D., Delespierre, B., Krivokapic-Blondiaux, S., Chastre, A., Thomas, P., Pang, Y., Lydon, J.P., Gonzalez, S.L., De Nicola, A.F., Schumacher, M. and Guennoun, R. 2010. Membrane progesterone receptors localization in the mouse spinal cord. *Neuroscience* 166: 94-106.
2. Gonzalez-Moran, M.G., Gonzalez-Arenas, A., German-Castelan, L. and Camacho-Arroyo, I. 2013. Changes in the content of sex steroid hormone receptors in the growing and regressing ovaries of *Gallus domesticus* during development. *Gen. Comp. Endocrinol.* 189: 51-58.