

# mPR $\alpha$ (H-76): sc-134815

## 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. Three distinct groups, designated  $\alpha$ ,  $\beta$  and  $\gamma$ , comprise the mPR gene family. mPR $\alpha$ , 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 $\alpha$  is expressed in ovary, testis, placenta, uterus and bladder. mPR $\beta$ , 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 $\beta$  is a 354 amino acid protein expressed in brain and spinal cord. Both mPR $\alpha$  and mPR $\beta$  may be G protein-coupled receptors and may be involved in oocyte maturation.

## REFERENCES

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3. Hammes, S.R. 2003. The further redefining of steroid-mediated signaling. *Proc. Natl. Acad. Sci. USA* 100: 2168-2170.
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## CHROMOSOMAL LOCATION

Genetic locus: PAQR7 (human) mapping to 1p36.11; Paqr7 (mouse) mapping to 4 D3.

## SOURCE

mPR $\alpha$  (H-76) is a rabbit polyclonal antibody raised against amino acids 1-76 mapping at the N-terminus of mPR $\alpha$  of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

mPR $\alpha$  (H-76) is recommended for detection of mPR $\alpha$  (membrane progesterin receptor  $\alpha$ ) of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for mPR $\alpha$  siRNA (h): sc-61071, mPR $\alpha$  siRNA (m): sc-61072, mPR $\alpha$  shRNA Plasmid (h): sc-61071-SH, mPR $\alpha$  shRNA Plasmid (m): sc-61072-SH, mPR $\alpha$  shRNA (h) Lentiviral Particles: sc-61071-V and mPR $\alpha$  shRNA (m) Lentiviral Particles: sc-61072-V.

Molecular Weight of mPR $\alpha$ : 40 kDa.

## 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.