

mPR ϵ (N-14): sc-99578

BACKGROUND

The PAQR superfamily of receptors includes AdipoR1, AdipoR2, mPR α , mPR β , mPR γ , mPR δ , mPR ϵ , PAQR3 and PAQR4, all of which encode functional receptors with a broad range of ligand specificities. The best characterized family members are AdipoR1 and AdipoR2, which regulate fatty acid oxidation and the uptake of glucose by adiponectin. Certain PAQR family members have been shown to specifically bind progesterone and mediate non-genomic effects. In yeast, since PAQR progesterone-dependent signaling does not require heterotrimeric G-proteins, it is suspected that PAQRs may function as a novel class of G protein-coupled receptors. mPR ϵ , also known as PAQR9 (progesterin and adipoQ receptor family member 9), is a 377 amino acid multi-pass membrane protein that responds to progesterone binding.

REFERENCES

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2. Tang, Y.T., et al. 2005. PAQR proteins: a novel membrane receptor family defined by an ancient 7-transmembrane pass motif. *J. Mol. Evol.* 61: 372-380.
3. Thomas, P. 2008. Characteristics of membrane progesterin receptor α (mPR α) and progesterone membrane receptor component 1 (PGMRC1) and their roles in mediating rapid progesterin actions. *Front Neuroendocrinol.* 29: 292-312.
4. Romero-Sánchez, M., et al. 2008. Expression profile of heptahelical putative membrane progesterone receptors in epithelial ovarian tumors. *Hum. Pathol.* 39: 1026-1033.
5. Góñez, L.J., et al. 2008. Pancreatic expression and mitochondrial localization of the progesterin-adipoQ receptor PAQR10. *Mol. Med.* 14: 697-704.
6. Villa, N.Y., et al. 2008. Sphingolipids function as downstream effectors of a fungal paqr receptor. *Mol. Pharmacol.* 75: 866-875.
7. Smith, J.L., et al. 2008. Heterologous expression of human mPR α , mPR β and mPR γ in yeast confirms their ability to function as membrane progesterone receptors. *Steroids* 73: 1160-1173.
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CHROMOSOMAL LOCATION

Genetic locus: PAQR9 (human) mapping to 3q23; Paqr9 (mouse) mapping to 9 E3.3.

SOURCE

mPR ϵ (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of mPR ϵ 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 100 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-99578 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

mPR ϵ (N-14) is recommended for detection of mPR ϵ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with PAQR3 or PAQR4.

mPR ϵ (N-14) is also recommended for detection of mPR ϵ in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for mPR ϵ siRNA (h): sc-78180, mPR ϵ siRNA (m): sc-152022, mPR ϵ shRNA Plasmid (h): sc-78180-SH, mPR ϵ shRNA Plasmid (m): sc-152022-SH, mPR ϵ shRNA (h) Lentiviral Particles: sc-78180-V and mPR ϵ shRNA (m) Lentiviral Particles: sc-152022-V.

Molecular Weight of mPR ϵ : 43 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™ 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) 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™ 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 or our catalog for detailed protocols and support products.