SANTA CRUZ BIOTECHNOLOGY, INC.

mPRδ/γ (B-8): sc-514273

BACKGROUND

The steroid progesterone induces the resumption of maturation in oocytes via a nongenomic pathway through binding to a novel, membrane progestin 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 this gene family, and while all contain 7 transmembrane domains, they show distinct distributions in reproductive, neural, kidney and intestinal tissues, respectively. These characteristics separate them from nuclear progestin receptors, and instead imply similarity to G protein-coupled receptors.

REFERENCES

1. Sheng, Y., et al. 2001. Regulation of *Xenopus* oocyte meiosis arrest by G protein βγ subunits. Curr. Biol. 11: 405-416.
2. Curran-Rauhut, M.A., et al. 2002. The distribution of progestin receptor mRNA in rat brainstem. Brain Res. Gene Expr. Patterns 1: 151-157.
3. Zhu, Y., et al. 2003. Cloning, expression, and characterization of a membrane progestin receptor and evidence it is an intermediary in meiotic maturation of fish oocytes. Proc. Natl. Acad. Sci. USA 100: 2231-2236.
4. Zhu, Y., et al. 2003. Identification, classification, and partial characterization of genes in humans and other vertebrates homologous to a fish membrane progestin receptor. Proc. Natl. Acad. Sci. USA 100: 2237-2242.
5. Kudwa, A.E., et al. 2003. Double oestrogen receptor α and β knockout mice reveal differences in neural oestrogen-mediated progestin receptor induction and female sexual behaviour. J. Neuroendocrinol. 15: 978-983.

CHROMOSOMAL LOCATION

Genetic locus: PAQR6 (human) mapping to 1q22, PAQR5 (human) mapping to 15q23; Paqr6 (mouse) mapping to 3 F1, Paqr5 (mouse) mapping to 9 B.

SOURCE

mPRδ/γ (B-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 234-257 near the C-terminus of mPRγ of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

mPRδ/γ (B-8) is available conjugated to agarose (sc-514273 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514273 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514273 PE), fluorescein (sc-514273 FITC), Alexa Fluor® 488 (sc-514273 AF488), Alexa Fluor® 546 (sc-514273 AF546), Alexa Fluor® 594 (sc-514273 AF594) or Alexa Fluor® 647 (sc-514273 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514273 AF680) or Alexa Fluor® 790 (sc-514273 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514273 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

mPRδ/γ (B-8) is recommended for detection of mPRδ and mPRγ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

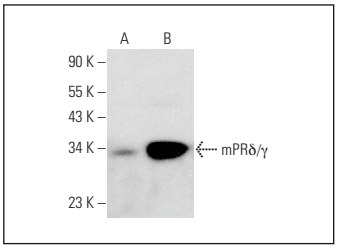
Molecular Weight of mPRδ/γ: 38 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, EOC 20 whole cell lysate: sc-364187 or WI-38 whole cell lysate: sc-364260.

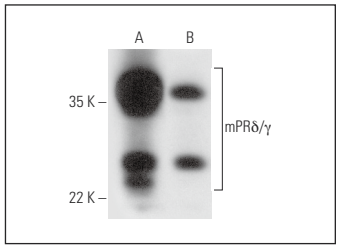
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



mPRδ/γ (B-8): sc-514273. Western blot analysis of mPRδ/γ expression in C6 (**A**) and EOC 20 (**B**) whole cell lysates.



mPRδ/γ (B-8): sc-514273. Western blot analysis of mPRδ/γ expression in HUV-EC-C (**A**) and WI-38 (**B**) whole cell lysates.

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 for detailed protocols and support products.