



GPR3 (H-50): sc-68877

BACKGROUND

G protein-coupled receptor 3 (GPR3), also designated ACCA orphan receptor, is a 330 amino acid member of the G protein-coupled receptor 1 family. The function of GPR3 is mediated by G proteins which activate adenylate cyclase. GPR3 is a multi-pass membrane protein that is located on the cellular membrane of cells and is detected at low levels in the eye, kidney, lung, ovary and testis. GPR3 is most highly expressed in the central nervous system, where it stimulates the production of cAMP, leading to neurite outgrowth and myelin inhibition. In oocytes, this control over cAMP production can halt meiosis and prevent progesterone-induced meiotic maturation. Mice deficient for GPR3 are able to reproduce but have no control over the oocyte maturation process, which results in nondeveloping early embryos and fragmented oocytes as the mice age.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPR3 (human) mapping to 1p36.11; Gpr3 (mouse) mapping to 4 D2.3.

SOURCE

GPR3 (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping within an N-terminal extracellular domain of GPR3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GPR3 (H-50) is recommended for detection of GPR3 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 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).

GPR3 (H-50) is also recommended for detection of GPR3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for GPR3 siRNA (h): sc-72173, GPR3 siRNA (m): sc-72174, GPR3 shRNA Plasmid (h): sc-72173-SH, GPR3 shRNA Plasmid (m): sc-72174-SH, GPR3 shRNA (h) Lentiviral Particles: sc-72173-V and GPR3 shRNA (m) Lentiviral Particles: sc-72174-V.

Molecular Weight of GPR3: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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) 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™ Mounting Medium: sc-24941.

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.