SANTA CRUZ BIOTECHNOLOGY, INC.

GPR10 (H-62): sc-135191

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs or GPCRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, are members of the largest protein family and play a role in many different stimulus-response pathways. G protein-coupled receptors mediate extracellular signals into intracellular signals (G protein activation). They respond to a great variety of signaling molecules, including hormones, neurotransmitters and other proteins and peptides. GPR proteins are integral seven-pass membrane proteins with some conserved amino acid regions. G protein-coupled receptor 10 (GPR10) acts as a receptor for prolactin-releasing peptide (PrRP). GPR10 plays a role in the regulation of food intake, pain-signal processing and in lactation. Primarily expressed in pituitary gland, it is repressed by bromocriptine. GPR10 interacts with various other proteins, including GRIP1, GRIP2 and PICK1.

REFERENCES

1. Marchese, A., et al. 1996. Cloning and chromosomal mapping of three novel genes, GPR9, GPR10 and GPR14, encoding receptors related to interleukin 8, neuropeptide Y and somatostatin receptors. Genomics 29: 335-344.
2. Hinuma, S., et al. 1998. A prolactin-releasing peptide in the brain. Nature 393: 272-276.
3. Fujii, R., et al. 1999. Tissue distribution of prolactin-releasing peptide (PrRP) and its receptor. Regul. Pept. 83: 1-10.
4. Lin, S.H., et al. 2001. The carboxyl terminus of the prolactin-releasing peptide receptor interacts with PDZ domain proteins involved in α-amino-3-hydroxy-5-methylisoxazole-4-propionic acid receptor clustering. Mol. Pharmacol. 60: 916-923.
5. Gu, W., et al. 2004. The prolactin-releasing peptide receptor (GPR10) regulates body weight homeostasis in mice. J. Mol. Neurosci. 22: 93-103.
6. Watanabe, T.K., et al. 2005. Mutated G protein-coupled receptor GPR10 is responsible for the hyperphagia/dyslipidaemia/obesity locus of Dmo1 in the OLETF rat. Clin. Exp. Pharmacol. Physiol. 32: 355-366.

CHROMOSOMAL LOCATION

Genetic locus: PRLHR (human) mapping to 10q26.11; Prlhr (mouse) mapping to 19 D3.

SOURCE

GPR10 (H-62) is a rabbit polyclonal antibody raised against amino acids 71-132 mapping within an internal region of GPR10 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.

STORAGE

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

APPLICATIONS

GPR10 (H-62) is recommended for detection of GPR10 of mouse, rat and human 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).

GPR10 (H-62) is also recommended for detection of GPR10 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GPR10 siRNA (h): sc-60725, GPR10 siRNA (m): sc-60726, GPR10 shRNA Plasmid (h): sc-60725-SH, GPR10 shRNA Plasmid (m): sc-60726-SH, GPR10 shRNA (h) Lentiviral Particles: sc-60725-V and GPR10 shRNA (m) Lentiviral Particles: sc-60726-V.

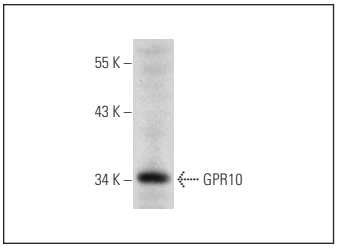
Molecular Weight of GPR10: 41 kDa.

Positive Controls: mouse brain extract: sc-2253.

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.

DATA



GPR10 (H-62): sc-135191. Western blot analysis of GPR10 expression in mouse brain tissue extract.

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.