SANTA CRUZ BIOTECHNOLOGY, INC.

GPR176 (S-15): sc-164531

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR176 (G protein-coupled receptor 176), also known as HB-954, GPR or Gm1012, is a 515 amino acid multipass membrane protein belonging to the G protein-coupled receptor 1 family. Expressed in brain and spleen, with trace expression in kidney, GPR176 functions as an orphan receptor that is thought to play a role in signaling events throughout the cell. Containing four N-glycosylation sites, seven transmembrane domains and a large C-terminal cytosolic domain, GPR176 is encoded by a gene mapping to human chromosome 15q14.

REFERENCES

1. Larhammar, D., et al. 1993. The receptor revolution—multiplicity of G-protein-coupled receptors. Drug Des. Discov. 9: 179-188.
2. Hata, S., et al. 1995. cDNA cloning of a putative G protein-coupled receptor from brain. Biochim. Biophys. Acta 1261: 121-125.
3. Ji, T.H., et al. 1998. G protein-coupled receptors. I. Diversity of receptor-ligand interactions. J. Biol. Chem. 273: 17299-17302.
4. Schöneberg, T., et al. 1999. Structural basis of G protein-coupled receptor function. Mol. Cell. Endocrinol. 151: 181-193.
5. Wittenberger, T., et al. 2001. An expressed sequence tag (EST) data mining strategy succeeding in the discovery of new G protein-coupled receptors. J. Mol. Biol. 307: 799-813.
6. Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. Gene 275: 83-91.
7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612183. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: GPR176 (human) mapping to 15q14; Gpr176 (mouse) mapping to 2 E5.

SOURCE

GPR176 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR176 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

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

Blocking peptide available for competition studies, sc-164531 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR176 (S-15) is recommended for detection of GPR176 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 other GPR family members.

GPR176 (S-15) is also recommended for detection of GPR176 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR176 siRNA (h): sc-90087, GPR176 siRNA (m): sc-145724, GPR176 shRNA Plasmid (h): sc-90087-SH, GPR176 shRNA Plasmid (m): sc-145724-SH, GPR176 shRNA (h) Lentiviral Particles: sc-90087-V and GPR176 shRNA (m) Lentiviral Particles: sc-145724-V.

Molecular Weight of GPR176: 57 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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