

GPR176 (C-12): sc-164529

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 multi-pass 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

- Larhammar, D., et al. 1993. The receptor revolution — multiplicity of G protein-coupled receptors. *Drug Des. Discov.* 9: 179-188.
- Hata, S., et al. 1995. cDNA cloning of a putative G protein-coupled receptor from brain. *Biochim. Biophys. Acta* 1261: 121-125.
- Ji, T.H., et al. 1998. G protein-coupled receptors. I. Diversity of receptor-ligand interactions. *J. Biol. Chem.* 273: 17299-17302.
- Schöneberg, T., et al. 1999. Structural basis of G protein-coupled receptor function. *Mol. Cell. Endocrinol.* 151: 181-193.
- 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.
- Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91.
- 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 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of GPR176 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.

Blocking peptide available for competition studies, sc-164529 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR176 (C-12) 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 (C-12) is also recommended for detection of GPR176 in additional species, including equine, canine, bovine, porcine and avian.

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.

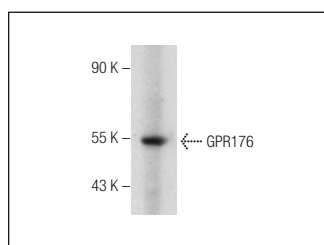
Molecular Weight of GPR176: 57 kDa.

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 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.

DATA



GPR176 (C-12): sc-164529. Western blot analysis of GPR176 expression in mouse brain tissue extract.

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.