

GPR172B (D-13): sc-242949

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. GPR172B, also known as PAR2 (porcine endogenous retrovirus A receptor 2) or RFT1 (riboflavin transporter 1), is a 448 amino acid multi-pass membrane protein that belongs to the riboflavin transporter family. Widely expressed, GPR172B is found at highest levels in small intestine, placenta and testis, and exists as two alternatively spliced isoforms. The gene encoding GPR172B maps to human chromosome 17p13.2.

REFERENCES

1. Menzaghi, F., et al. 2002. Constitutively activated G protein-coupled receptors: a novel approach to CNS drug discovery. *Curr. Drug Targets CNS Neurol. Disord.* 1: 105-121.
2. Szekeres, P.G. 2002. Functional assays for identifying ligands at orphan G protein-coupled receptors. *Recept. Channels* 8: 297-308.
3. Vassilatis, D.K., et al. 2003. The G protein-coupled receptor repertoires of human and mouse. *Proc. Natl. Acad. Sci. USA* 100: 4903-4908.
4. Ericsson, T.A., et al. 2003. Identification of receptors for pig endogenous retrovirus. *Proc. Natl. Acad. Sci. USA* 100: 6759-6764.
5. Yonezawa, A., et al. 2008. Identification and functional characterization of a novel human and rat riboflavin transporter, RFT1. *Am. J. Physiol., Cell Physiol.* 295: C632-C641.
6. Yao, Y., et al. 2010. Identification and comparative functional characterization of a new human riboflavin transporter hRFT3 expressed in the brain. *J. Nutr.* 140: 1220-1226.
7. Davies, M.N., et al. 2011. Present perspectives on the automated classification of the G protein-coupled receptors (GPCRs) at the protein sequence level. *Curr. Top. Med. Chem.* 11: 1994-2009.

CHROMOSOMAL LOCATION

Genetic locus: GPR172B (human) mapping to 17p13.2.

SOURCE

GPR172B (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GPR172B 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.

RESEARCH USE

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

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-242949 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR172B (D-13) is recommended for detection of GPR172B of 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 GPR172A.

Suitable for use as control antibody for GPR172B siRNA (h): sc-93922, GPR172B shRNA Plasmid (h): sc-93922-SH and GPR172B shRNA (h) Lentiviral Particles: sc-93922-V.

Molecular Weight of GPR172B isoforms: 46/16 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.

PROTOCOLS

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