

GPR110 (G-12): sc-107568

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. GPR110 (G protein-coupled receptor 110), also known as PGR19, is a 911 amino acid protein that belongs to the G protein coupled receptor 2 family and LN-TM7 subfamily. Characterized as an adhesion GPCR, GPR110 is a multipass membrane-bound protein with a long amino-terminus that contains multiple domains. One of these domains is the GPCR proteolytic site (GPS), which is essential for proteolytic cleavage of the amino-terminus and for cell surface expression.

REFERENCES

1. Fredriksson, R., Lagerström, M.C., Höglund, P.J. and Schiöth, H.B. 2002. Novel human G protein-coupled receptors with long N-terminals containing GPS domains and Ser/Thr-rich regions. *FEBS Lett.* 531: 407-414.
2. Bjarnadóttir, T.K., Fredriksson, R., Höglund, P.J., Gloriam, D.E., Lagerström, M.C. and Schiöth, H.B. 2004. The human and mouse repertoire of the adhesion family of G protein-coupled receptors. *Genomics* 84: 23-33.
3. Bjarnadóttir, T.K., Geirardsdóttir, K., Ingemansson, M., Mirza, M.A., Fredriksson, R. and Schiöth, H.B. 2007. Identification of novel splice variants of adhesion G protein-coupled receptors. *Gene* 387: 38-48.
4. Lagerström, M.C. and Schiöth, H.B. 2008. Structural diversity of G protein-coupled receptors and significance for drug discovery. *Nat. Rev. Drug Discov.* 7: 339-357.
5. Cotton, M. and Claing, A. 2009. G protein-coupled receptors stimulation and the control of cell migration. *Cell. Signal.* 21: 1045-1053.
6. Ho, M.K., Su, Y., Yeung, W.W. and Wong, Y.H. 2009. Regulation of transcription factors by heterotrimeric G proteins. *Curr. Mol. Pharmacol.* 2: 19-31.
7. Woehler, A. and Ponimaskin, E.G. 2009. G protein-mediated signaling: same receptor, multiple effectors. *Curr. Mol. Pharmacol.* 2: 237-248.

CHROMOSOMAL LOCATION

Genetic locus: GPR110 (human) mapping to 6p12.3.

SOURCE

GPR110 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of GPR110 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-107568 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR110 (G-12) is recommended for detection of GPR110 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 other GPR family members.

GPR110 (G-12) is also recommended for detection of GPR110 in additional species, including equine.

Suitable for use as control antibody for GPR110 siRNA (h): sc-95206, GPR110 shRNA Plasmid (h): sc-95206-SH and GPR110 shRNA (h) Lentiviral Particles: sc-95206-V.

Molecular Weight of GPR110: 101 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.