SANTA CRUZ BIOTECHNOLOGY, INC.

GPR110 (S-13): sc-107572

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

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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 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic 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.

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-107572 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR110 (S-13) is recommended for detection of GPR110 of human and rat 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.

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.

PROTOCOLS

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