SANTA CRUZ BIOTECHNOLOGY, INC.

GPR113 (P-14): sc-137507

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs or GPCRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, are members of the largest protein family and play a role in many different stimulus-response pathways. G protein-coupled receptors mediate extracellular signals into intracellular signals (G protein activation). They respond to a wide variety of signaling molecules, including hormones, neurotransmitters and other proteins and peptides. GPR proteins are usually integral seven pass membrane proteins with some conserved amino acid regions. GPR113 (G protein-coupled receptor 113), also known as PGR23 (G protein-coupled receptor PGR23), is a 1,079 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor 2 family and LN-TM7 subfamily. Localizing to cell membrane and containing one GPS domain, GPR113 may function as an orphan receptor. GPR113 exists as two isoforms due to alternative splicing events.

REFERENCES

1. Fredriksson, R., et al. 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. Vassilatis, D.K., et al. 2003. The G protein-coupled receptor repertoires of human and mouse. Proc. Natl. Acad. Sci. USA 100: 4903-4908.
3. Bjarnadóttir, T.K., et al. 2004. The human and mouse repertoire of the adhesion family of G-protein-coupled receptors. Genomics 84: 23-33.
4. Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. Nature 434: 325-337.
5. Bjarnadóttir, T.K., et al. 2007. Identification of novel splice variants of Adhesion G protein-coupled receptors. Gene 387: 38-48.
6. Leja, J., et al. 2009. Novel markers for enterochromaffin cells and gastrointestinal neuroendocrine carcinomas. Mod. Pathol. 22: 261-272.

CHROMOSOMAL LOCATION

Genetic locus: GPR113 (human) mapping to 2p23.3.

SOURCE

GPR113 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of GPR113 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-137507 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

GPR113 (P-14) is recommended for detection of GPR113 isoforms 1 and 2 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.

GPR113 (P-14) is also recommended for detection of GPR113 isoforms 1 and 2 in additional species, including equine and bovine.

Suitable for use as control antibody for GPR113 siRNA (h): sc-95043, GPR113 shRNA Plasmid (h): sc-95043-SH and GPR113 shRNA (h) Lentiviral Particles: sc-95043-V.

Molecular Weight of GPR113 isoforms: 116/94 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.

PROTOCOLS

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