SANTA CRUZ BIOTECHNOLOGY, INC.

GPR-137 (V-18): sc-247043

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. GPR-137 (G protein-coupled receptor 137), also known as TM7SF1L1 (transmembrane 7 superfamily member 1-like 1 protein), C11orf4 or GPR-137A, is a 417 amino acid multi-pass membrane protein that belongs to the GPR-137 family. Existing as three alternatively spliced isoforms, the gene encoding GPR-137 maps to human chromosome 11q13.1.

REFERENCES

1. O'Brien, K.P., et al. 2000. Characterization of five novel human genes in the 11q13-q22 region. Biochem. Biophys. Res. Commun. 273: 90-94.
2. Covington, D.K., et al. 2006. The G protein-coupled receptor 40 family (GPR40-GPR43) and its role in nutrient sensing. Biochem. Soc. Trans. 34: 770-773.
3. Zaslavsky, A., et al. 2006. Homo- and hetero-dimerization of LPA/S1P receptors, OGR1 and GPR4. Biochim. Biophys. Acta 1761: 1200-1212.
4. Jones, P.G., et al. 2007. Tissue distribution and functional analyses of the constitutively active orphan G protein-coupled receptors, GPR26 and GPR78. Biochim. Biophys. Acta 1770: 890-901.
5. Yonezawa, T., et al. 2007. Short-chain fatty acids induce acute phosphorylation of the p38 mitogen-activated protein kinase/heat shock protein 27 pathway via GPR43 in the MCF-7 human breast cancer cell line. Cell. Signal. 19: 185-193.
6. Rayasam, G.V., et al. 2007. Fatty acid receptors as new therapeutic targets for diabetes. Expert. Opin. Ther. Targets 11: 661-671.

CHROMOSOMAL LOCATION

Genetic locus: GPR137 (human) mapping to 11q13.1.

SOURCE

GPR-137 (V-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR-137 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-247043 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

GPR-137 (V-18) is recommended for detection of GPR-137 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).

GPR-137 (V-18) is also recommended for detection of GPR-137 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR-137 siRNA (h): sc-96934, GPR-137 shRNA Plasmid (h): sc-96934-SH and GPR-137 shRNA (h) Lentiviral Particles: sc-96934-V.

Molecular Weight of GPR-137: 46 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.