

GPR160 (N-14): sc-102575

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. GPR signaling is an evolutionarily ancient mechanism used by all eukaryotes to sense environmental stimuli and mediate cell-cell communication. 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. The gene encoding GPR160 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. GPR160 expression has been shown to be upregulated in prostate cancer.

REFERENCES

- Ji, T.H., et al. 1998. G protein-coupled receptors. I. Diversity of receptor-ligand interactions. *J. Biol. Chem.* 273: 17299-17302.
- Raming, K., et al. 1998. Identification of a novel G protein-coupled receptor expressed in distinct brain regions and a defined olfactory zone. *Recept. Channels* 6: 141-151.
- Schöneberg, T., et al. 1999. Structural basis of G protein-coupled receptor function. *Mol. Cell. Endocrinol.* 151: 181-193.
- Schwalbe, H. and Wess, G. 2002. Dissecting G protein-coupled receptors: structure, function, and ligand interaction. *Chembiochem* 3: 915-919.
- Small, K.M., et al. 2002. False positive non-synonymous polymorphisms of G protein-coupled receptor genes. *FEBS Lett.* 516: 253-256.
- Schöneberg, T., et al. 2002. The structural basis of G protein-coupled receptor function and dysfunction in human diseases. *Rev. Physiol. Biochem. Pharmacol.* 144: 143-227.
- Vassilatis, D.K., et al. 2003. The G protein-coupled receptor repertoires of human and mouse. *Proc. Natl. Acad. Sci. USA* 100: 4903-4908.
- Schlomm, T., et al. 2005. Extraction and processing of high quality RNA from impalpable and macroscopically invisible prostate cancer for microarray gene expression analysis. *Int. J. Oncol.* 27: 713-720.

CHROMOSOMAL LOCATION

Genetic locus: GPR160 (human) mapping to 3q26.2.

SOURCE

GPR160 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GPR160 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-102575 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR160 (N-14) is recommended for detection of GPR160 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.

Suitable for use as control antibody for GPR160 siRNA (h): sc-78301, GPR160 shRNA Plasmid (h): sc-78301-SH and GPR160 shRNA (h) Lentiviral Particles: sc-78301-V.

Molecular Weight of GPR160: 40 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.

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.

PROTOCOLS

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