

GPR25 (D-15): sc-103967

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. GPR25 (G protein-coupled receptor 25) is a 361 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor family and functions as an orphan receptor, possibly playing a role in signal transduction throughout the cell. The gene encoding GPR25 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

- Houslay, M.D. 1992. G-protein linked receptors: a family probed by molecular cloning and mutagenesis procedures. *Clin. Endocrinol.* 36: 525-534.
- Larhammar, D., et al. 1993. The receptor revolution—multiplicity of G protein-coupled receptors. *Drug Des. Discov.* 9: 179-188.
- Jung, B.P., et al. 1997. Discovery of a novel human G protein-coupled receptor gene (GPR25) located on chromosome 1. *Biochem. Biophys. Res. Commun.* 230: 69-72.
- Online Mendelian Inheritance in Man, OMIM[™]. 1997. Johns Hopkins University, Baltimore, MD. MIM Number: 602174. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Ji, T.H., et al. 1998. G protein-coupled receptors. I. Diversity of receptor-ligand interactions. *J. Biol. Chem.* 273: 17299-17302.
- Schöneberg, T., et al. 1999. Structural basis of G protein-coupled receptor function. *Mol. Cell. Endocrinol.* 151: 181-193.
- Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91.

CHROMOSOMAL LOCATION

Genetic locus: Gpr25 (mouse) mapping to 1 E4.

SOURCE

GPR25 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GPR25 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

GPR25 (D-15) is recommended for detection of GPR25 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 GPR25 siRNA (m): sc-105406, GPR25 shRNA Plasmid (m): sc-105406-SH and GPR25 shRNA (m) Lentiviral Particles: sc-105406-V.

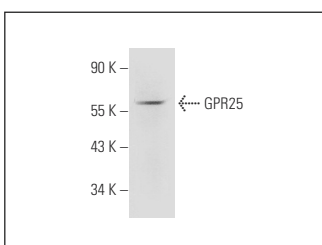
Molecular Weight of GPR25: 39 kDa.

Positive Controls: rat liver extract: sc-2395.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



GPR25 (D-15): sc-103967. Western blot analysis of GPR25 expression in rat liver tissue extract.

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.