

GPR84 (D-15): sc-48221

BACKGROUND

G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors and heptahelical receptors, are a protein family which interact with G proteins (heterotrimeric GTPases) to synthesize intracellular second messengers such as diacylglycerol, cyclic AMP, inositol phosphates and calcium ions. Their diverse biological functions range from vision and olfaction to neuronal and endocrine signaling and are involved in many pathological conditions. G protein receptor 84 (GPR84), a member of the GCPR 1 family, is an orphan GCPR expressed in bone marrow, brain, heart, muscle, colon, thymus, spleen, kidney, liver, placenta, intestine, lung and peripheral blood leukocytes. In activated T cells, GPR84 regulates early interleukin-4 (IL-4) gene expression.

REFERENCES

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2. Probst, W.C., Snyder, L.A., Schuster, D.I., Brosius, J. and Sealton, S.C. 1992. Sequence alignment of the G protein-coupled receptor superfamily. *DNA Cell Biol.* 11: 1-20.
3. Yousefi, S., Cooper, P.R., Potter, S.L., Mueck, B. and Jarai, G. 2001. Cloning and expression analysis of a novel G protein-coupled receptor selectively expressed on granulocytes. *J. Leukoc. Biol.* 69: 1045-1052.
4. Wittenberger, T., Schaller, H.C. and Hellebrand, S. 2001. An expressed sequence tag (EST) data mining strategy succeeding in the discovery of new G protein-coupled receptors. *J. Mol. Biol.* 307: 799-813.
5. Venkataraman, C. and Kuo, F. 2005. The G protein-coupled receptor, GPR84 regulates IL-4 production by T lymphocytes in response to CD3 crosslinking. *Immunol. Lett.* 101: 144-53.

CHROMOSOMAL LOCATION

Genetic locus: GPR84 (human) mapping to 12q13.13; Gpr84 (mouse) mapping to 15 F3.

SOURCE

GPR84 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GPR84 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-48221 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

GPR84 (D-15) is recommended for detection of GPR84 of mouse and 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).

Suitable for use as control antibody for GPR84 siRNA (h): sc-60751, GPR84 siRNA (m): sc-60752, GPR84 shRNA Plasmid (h): sc-60751-SH, GPR84 shRNA Plasmid (m): sc-60752-SH, GPR84 shRNA (h) Lentiviral Particles: sc-60751-V and GPR84 shRNA (m) Lentiviral Particles: sc-60752-V.

Molecular Weight of GPR84: 44 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.



Try **GPR84 (1D9): sc-293447**, our highly recommended monoclonal alternative to GPR84 (D-15).