SANTA CRUZ BIOTECHNOLOGY, INC.

GPR84 (1D9): sc-293447

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

1. Lameh, J., Cone, R.I., Maeda, S., Philip, M., Corbani, M., Nádasdi, L., Ramachandran, J., Smith, G.M. and Sadee, W. 1990. Structure and function of G protein-coupled receptors. Pharm. Res. 7: 1213-1221.
2. Probst, W.C., Snyder, L.A., Schuster, D.I., Brosius, J. and Sealfon, 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: 144-153.

CHROMOSOMAL LOCATION

Genetic locus: GPR84 (human) mapping to 12q13.13.

SOURCE

GPR84 (1D9) is a mouse monoclonal antibody raised against a partial length recombinant protein mapping within amino acids 208-316 of GPR84 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

GPR84 (1D9) is recommended for detection of GPR84 of human 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)] 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 shRNA Plasmid (h): sc-60751-SH and GPR84 shRNA (h) Lentiviral Particles: sc-60751-V.

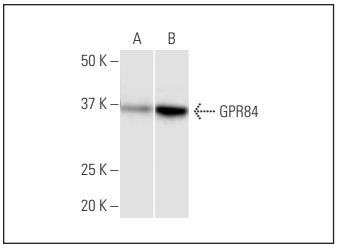
Molecular Weight of GPR84: 44 kDa.

Positive Controls: GPR84 transfected 293T whole cell lysate.

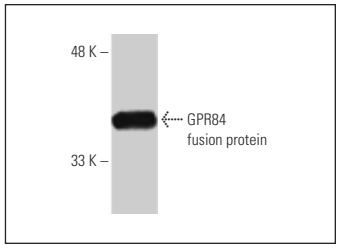
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



GPR84 (1D9): sc-293447. Western blot analysis of GPR84 expression in non-transfected (**A**) and GPR84 transfected (**B**) 293T whole cell lysates.



GPR84 (1D9): sc-293447. Western blot analysis of human recombinant GPR84 fusion protein.

RESEARCH USE

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