# GPR144 (S-20): sc-247063



The Power to Question

## **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. GPR144 (G protein-coupled receptor 144), also known as PGR24, is a 963 amino acid multipass membrane protein that functions as an orphan receptor. A member of the GPR2 family and LN-TM7 subfamily, GPR144 contains one GPS domain and a pentaxin domain, and is encoded by a gene that maps to human chromosome 9q33.3.

## **REFERENCES**

- 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.
- Fredriksson, R., Lagerström, M.C., Höglund, P.J. and Schiöth, H.B. 2002.
  Novel human G protein-coupled receptors with long N-terminals containing GPS domains and Ser/Thr-rich regions. FEBS Lett. 531: 407-414.
- 3. Vassilatis, D.K., Hohmann, J.G., Zeng, H., Li, F., Ranchalis, J.E., Mortrud, M.T., Brown, A., Rodriguez, S.S., Weller, J.R., Wright, A.C., Bergmann, J.E. and Gaitanaris, G.A. 2003. The G protein-coupled receptor repertoires of human and mouse. Proc. Natl. Acad. Sci. USA 100: 4903-4908.
- 4. Lanier, S.M. 2004. AGS proteins, GPR motifs and the signals processed by heterotrimeric G proteins. Biol. Cell 96: 369-372.
- Bjarnadóttir, T.K., Fredriksson, R., Höglund, P.J., Gloriam, D.E., Lagerström, M.C. and Schiöth, H.B. 2004. The human and mouse repertoire of the adhesion family of G-protein-coupled receptors. Genomics 84: 23-33.
- Bjarnadóttir, T.K., Fredriksson, R. and Schiöth, H.B. 2007. The adhesion GPCRs: a unique family of G protein-coupled receptors with important roles in both central and peripheral tissues. Cell. Mol. Life Sci. 64: 2104-2119.
- Yona, S., Lin, H.H., Siu, W.O., Gordon, S. and Stacey, M. 2008. Adhesion-GPCRs: emerging roles for novel receptors. Trends Biochem. Sci. 33: 491-500.

# **CHROMOSOMAL LOCATION**

Genetic locus: GPR144 (human) mapping to 9q33.3.

#### SOURCE

GPR144 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GPR144 of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-247063 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

GPR144 (S-20) is recommended for detection of GPR144 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 GPR144 siRNA (h): sc-92862, GPR144 shRNA Plasmid (h): sc-92862-SH and GPR144 shRNA (h) Lentiviral Particles: sc-92862-V.

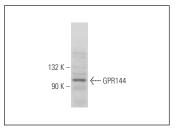
Molecular Weight of GPR144: 104 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## **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



GPR144 (S-20): sc-247063. Western blot analysis of GPR144 expression in K-562 whole cell lysate.

#### **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.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**