SANTA CRUZ BIOTECHNOLOGY, INC.

# GPR88 (C-13): sc-79513

SANTA CRUZ BIOTECHNOLOGY

*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. GPR88 (G protein-coupled receptor 88), also known as STRG, is a 384 amino acid multi-pass membrane protein that localizes to the cell membrane and belongs to the G protein coupled receptor family. Expressed exclusively in striatum, GPR88 functions as an orphan receptor that may be involved in signaling pathways throughout the cell. Human GPR88 shares 95% sequence identity with its rat counterpart, suggesting a conserved role between species.

## REFERENCES


1. Larhammar, D., Blomqvist, A.G. and Wahlestedt, C. 1993. The receptor revolution—multiplicity of G protein-coupled receptors. Drug Des. Discov. 9: 179-188.
2. Mizushima, K., Miyamoto, Y., Tsukahara, F., Hirai, M., Sakaki, Y. and Ito, T. 2000. A novel G-protein-coupled receptor gene expressed in striatum. Genomics 69: 314-321.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607468. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Kristiansen, K. 2004. Molecular mechanisms of ligand binding, signaling, and regulation within the superfamily of G-protein-coupled receptors: molecular modeling and mutagenesis approaches to receptor structure and function. Pharmacol. Ther. 103: 21-80.
5. Ghate, A., Befort, K., Becker, J.A., Filliol, D., Bole-Feysot, C., Demebele, D., Jost, B., Koch, M. and Kieffer, B.L. 2007. Identification of novel striatal genes by expression profiling in adult mouse brain. Neuroscience 146: 1182-1192.
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## CHROMOSOMAL LOCATION

Genetic locus: GPR88 (human) mapping to 1p21.2; Gpr88 (mouse) mapping to 3 G1.

## SOURCE

GPR88 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of GPR88 of human origin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## 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-79513 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GPR88 (C-13) is recommended for detection of GPR88 of mouse, rat 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).

GPR88 (C-13) is also recommended for detection of GPR88 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GPR88 siRNA (h): sc-75192, GPR88 shRNA Plasmid (h): sc-75192-SH and GPR88 shRNA (h) Lentiviral Particles: sc-75192-V.

Molecular Weight of (predicted) GPR88: 40 kDa.

Molecular Weight of (observed) GPR88: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, IMR-32 cell lysate: sc-2409 or TE671 cell lysate: sc-2416.

## 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.