

GPR63 (C-17): sc-55192

BACKGROUND

GPR63 (probable G protein coupled receptor 63, PSP24b) is a 419 amino acid protein encoded by the human GPR63 gene. GPR63 is an orphan receptor member of the G protein coupled receptor 1 family. G protein-coupled receptors (GPCRs, or GPRs) contain 7 transmembrane domains and transduce extracellular signals through heterotrimeric G proteins. Key roles for G protein-coupled receptors include control of protein maturation and cell surface delivery and providing the correct framework for interactions with both hetero-trimeric G proteins and arrestins to allow signal generation and its termination. GPR63 is expressed in brain tissue, most notably frontal cortex, with lower levels in the thalamus, caudate, hypothalamus and midbrain.

REFERENCES

- Lee, D.K., George, S.R., Cheng, R., Nguyen, T., Liu, Y., Brown, M., Lynch, K.R. and O'Dowd, B.F. 2001. Identification of four novel human G protein-coupled receptors expressed in the brain. *Brain Res. Mol. Brain Res.* 86: 13-22.
- Cikos, S., Gregor, P. and Koppel, J. 2001. Cloning of a novel biogenic amine receptor-like G protein-coupled receptor expressed in human brain. *Biochim. Biophys. Acta* 1521: 66-72.
- Takeda, S., Kadowaki, S., Haga, T., Takaesu, H. and Mitaku, S. 2002. Identification of G protein-coupled receptor genes from the human genome sequence. *FEBS Lett.* 520: 97-101.
- Conner, A.C., Hay, D.L., Simms, J., Howitt, S.G., Schindler, M., Smith, D.M., Wheatley, M. and Poyner, D.R. 2004. A key role for transmembrane prolines in calcitonin receptor-like receptor agonist binding and signalling: implications for family B G protein-coupled receptors. *Mol. Pharmacol.* 67: 20-31.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- Milligan, G. 2007. A day in the life of a G protein-coupled receptor: the contribution to function of G protein-coupled receptor dimerization. *Br. J. Pharmacol.* 153: S216-S229.
- Oldham, W.M. and Hamm, H.E. 2007. Heterotrimeric G protein activation by G protein-coupled receptors. *Nat. Rev. Mol. Cell Biol.* 9: 60-71.

CHROMOSOMAL LOCATION

Genetic locus: GPR63 (human) mapping to 6q16.1.

SOURCE

GPR63 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of GPR63 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.

RESEARCH USE

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

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-55192 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR63 (C-17) is recommended for detection of GPR63 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)], 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).

GPR63 (C-17) is also recommended for detection of GPR63 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR63 siRNA (h): sc-62401, GPR63 shRNA Plasmid (h): sc-62401-SH and GPR63 shRNA (h) Lentiviral Particles: sc-62401-V.

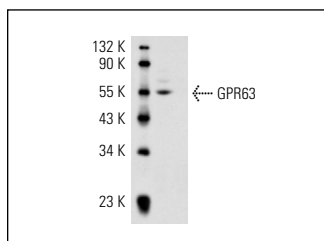
Molecular Weight of GPR63: 48 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410.

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



GPR63 (C-17): sc-55192. Western blot analysis of GPR63 expression in SK-N-SH whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.