

# GPR12 (N-18): sc-48200

## BACKGROUND

G protein-coupled receptors (GPRs) are a protein family of transmembrane receptors that transmit an extracellular signal (ligand binding) into an intracellular signal (G protein activation). GPR signaling is an evolutionarily ancient mechanism used by all eukaryotes to sense environmental stimuli and mediate cell-cell communication. All of the receptors have seven membrane-spanning domains and the extracellular parts of the receptor can be glycosylated. These extracellular loops also contain two highly conserved cysteine residues which create disulfide bonds to stabilize the receptor structure. GPR12 is a 334 amino acid peptide that is expressed primarily in brain, particularly in regions where neuronal differentiation takes place. GPR12 is coupled to an inhibitory G protein. It positively influences differentiation and maturation of post-mitotic neurons, and it may promote the growth of neuronal precursor cells.

## REFERENCES

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6. Hinckley, M., Vaccari, S., Horner, K., Chen, R. and Conti, M. 2005. The G protein-coupled receptors GPR3 and GPR12 are involved in cAMP signaling and maintenance of meiotic arrest in rodent oocytes. *Dev. Biol.* 287: 249-261.

## CHROMOSOMAL LOCATION

Genetic locus: GPR12 (human) mapping to 13q12.13; Gpr12 (mouse) mapping to 5 G3.

## SOURCE

GPR12 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GPR12 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-48200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GPR12 (N-18) is recommended for detection of GPR12 of mouse, rat and 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).

GPR12 (N-18) is also recommended for detection of GPR12 in additional species, including equine and canine.

Suitable for use as control antibody for GPR12 siRNA (h): sc-60735, GPR12 siRNA (m): sc-60736, GPR12 shRNA Plasmid (h): sc-60735-SH, GPR12 shRNA Plasmid (m): sc-60736-SH, GPR12 shRNA (h) Lentiviral Particles: sc-60735-V and GPR12 shRNA (m) Lentiviral Particles: sc-60736-V.

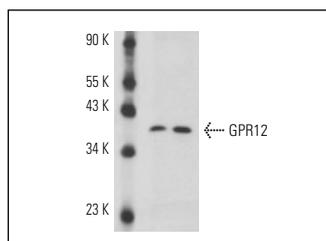
Molecular Weight of GPR12: 37 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or TE 671 cell lysate.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



GPR12 (N-18): sc-48200. Western blot analysis of GPR12 expression in Y79 (A) and TE 671 (B) whole cell lysates.

## RESEARCH USE

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