

GPR105 (K-12): sc-48191

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. GPR105, also designated P2Y14, is widely expressed throughout many brain regions where it localizes to glial cells, and specifically co-localizes with astrocytes. GPR105 is upregulated when a tissue is immunologically challenged with lipopolysaccharide, leading to the theory that GPR105 may play an important role in modulating peripheral and neuroimmune function.

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CHROMOSOMAL LOCATION

Genetic locus: P2RY14 (human) mapping to 3q25.1; P2ry14 (mouse) mapping to 3 D.

SOURCE

GPR105 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR105 of human origin.

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-48189 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR105 (K-12) is recommended for detection of GPR105 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).

GPR105 (K-12) is also recommended for detection of GPR105 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR105 siRNA (h): sc-60731, GPR105 siRNA (m): sc-60732, GPR105 shRNA Plasmid (h): sc-60731-SH, GPR105 shRNA Plasmid (m): sc-60732-SH, GPR105 shRNA (h) Lentiviral Particles: sc-60731-V and GPR105 shRNA (m) Lentiviral Particles: sc-60732-V.

Molecular Weight of GPR105: 39 kDa.

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.

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.