

GPR56 (N-15): sc-47015

BACKGROUND

G protein-coupled receptors (GPRs or GPCRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, are members of the largest protein family and play a role in many different stimulus-response pathways. G protein-coupled receptors mediate extracellular signals into intracellular signals (G protein activation). They respond to a great variety of signaling molecules, including hormones, neurotransmitters and other proteins and peptides. GPR proteins are integral seven-pass membrane proteins with some conserved amino acid regions. G protein-coupled receptor 56 (GPR56), also designated TM7XN1 protein, contains one GPS domain. GPR56 plays an important role in cell-cell interactions and is widely expressed, with highest levels detected in brain, heart and thyroid gland. Defects in the gene encoding for GPR56 can cause bilateral frontoparietal polymicrogyria (BFPF) which is characterized by disorganized cortical lamination.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPR56 (human) mapping to 16q21; Gpr56 (mouse) mapping to 8 D1.

SOURCE

GPR56 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GPR56 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-47015 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR56 (N-15) is recommended for detection of mature GPR56 and GPR56 precursor of human and, to a lesser extent, mouse and rat 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).

GPR56 (N-15) is also recommended for detection of mature GPR56 and GPR56 precursor in additional species, including canine and porcine.

Suitable for use as control antibody for GPR56 siRNA (h): sc-60749, GPR56 siRNA (m): sc-60750, GPR56 shRNA Plasmid (h): sc-60749-SH, GPR56 shRNA Plasmid (m): sc-60750-SH, GPR56 shRNA (h) Lentiviral Particles: sc-60749-V and GPR56 shRNA (m) Lentiviral Particles: sc-60750-V.

Molecular Weight of GPR56: 65 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.