

GPR20 (I-17): sc-87140

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. GPR signaling is an evolutionarily ancient mechanism used by all eukaryotes to sense environmental stimuli and mediate cell-cell communication. 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. GPR20 is a 358 amino acid membrane protein that constitutively activates G_i proteins without ligand stimulation. Also, GPR20 may be involved in the control of intracellular cAMP levels and mitogenic signaling. Interestingly, GPR20 is expressed in liver and certain regions of the brain, including putamen, caudate and thalamus, but is not expressed in hypothalamus, pons and frontal cortex.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPR20 (human) mapping to 8q24.3; Gpr20 (mouse) mapping to 15 D3.

SOURCE

GPR20 (I-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR20 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87140 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR20 (I-17) is recommended for detection of GPR20 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); non cross-reactive with other GPR family members.

GPR20 (I-17) is also recommended for detection of GPR20 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR20 siRNA (h): sc-77863, GPR20 siRNA (m): sc-145729, GPR20 shRNA Plasmid (h): sc-77863-SH, GPR20 shRNA Plasmid (m): sc-145729-SH, GPR20 shRNA (h) Lentiviral Particles: sc-77863-V and GPR20 shRNA (m) Lentiviral Particles: sc-145729-V.

Molecular Weight of GPR20: 38 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

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