

GPR180 (N-20): sc-84284

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 provide attractive targets for drug therapy due to the sheer size and diversity of ligands within this receptor family. GPR180, also designated ITR (intimal thickness-related receptor), is a 440 amino acid protein that is highly expressed in vascular smooth muscle cells where it has been shown to increase the thickness of blood vessel intima. Due to its role in vascular remodeling, GPR180 may represent a potential target for development of drugs in the prevention of vascular restenosis, a condition that is common after percutaneous transluminal coronary angioplasty (PTCA).

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CHROMOSOMAL LOCATION

Genetic locus: GPR180 (human) mapping to 13q32.1; Gpr180 (mouse) mapping to 14 E4.

SOURCE

GPR180 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of GPR180 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-84284 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR180 (N-20) is recommended for detection of GPR180 of mouse 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.

GPR180 (N-20) is also recommended for detection of GPR180 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GPR180 siRNA (h): sc-75172, GPR180 siRNA (m): sc-145728, GPR180 shRNA Plasmid (h): sc-75172-SH, GPR180 shRNA Plasmid (m): sc-145728-SH, GPR180 shRNA (h) Lentiviral Particles: sc-75172-V and GPR180 shRNA (m) Lentiviral Particles: sc-145728-V.

Molecular Weight of GPR180: 49 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.

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.