

GPR43 (Y-15): sc-28420

BACKGROUND

G protein-coupled receptors provide attractive targets for drug therapy due to the sheer size and diversity of ligands within this receptor family. G protein-coupled receptor (GPR) GPR41 and GPR43 are related members of a homologous family of orphan G protein-coupled receptors that are tandemly encoded at a single chromosomal locus in both humans and mice. GPR43 functions as a ligand for short chain fatty acids (SCFAs), notably acetate and propionate. Bacteria in the gut produce high concentrations of SCFAs, which are subsequently released in the bloodstream, where they exert cellular effects on blood leukocytes, including calcium release, ERK1/2 activation, and inhibition of cAMP accumulation. These effects indicate a role for GPR43 in the recruitment of leukocytes, particularly polymorphonuclear cells, to sites of bacterial infection.

CHROMOSOMAL LOCATION

Genetic locus: FFAR2 (human) mapping to 19q13.12; Ffar2 (mouse) mapping to 7 B1.

SOURCE

GPR43 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal extracellular domain of GPR43 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-28420 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

GPR43 (Y-15) is recommended for detection of GPR43 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).

Suitable for use as control antibody for GPR43 siRNA (h): sc-77339, GPR43 siRNA (m): sc-77340, GPR43 shRNA Plasmid (h): sc-77339-SH, GPR43 shRNA Plasmid (m): sc-77340-SH, GPR43 shRNA (h) Lentiviral Particles: sc-77339-V and GPR43 shRNA (m) Lentiviral Particles: sc-77340-V.

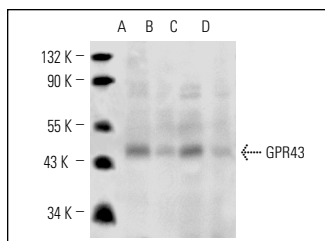
Molecular Weight of GPR43: 43 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, THP-1 cell lysate: sc-2238 or mouse spleen extract: sc-2391.

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) 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™ Mounting Medium: sc-24941.

DATA



GPR43 (Y-15): sc-28420. Western blot analysis of GPR43 expression in M1 (A), MCP-5 (B) and THP-1 (C) whole cell lysates and mouse spleen tissue extract (D).

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **GPR43 (3B3): sc-293202**, our highly recommended monoclonal alternative to GPR43 (Y-15).