

# LGR5 (C-16): sc-68580

## BACKGROUND

G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors or heptahelical receptors, interact with G proteins (heterotrimeric GTPases) to synthesize intracellular second messengers, such as diacylglycerol, cyclic AMP, inositol phosphates and calcium ions. Their diverse biological functions range from vision and olfaction to neuronal and endocrine signaling and are involved in many pathological conditions. LGR5 (leucine-rich repeat-containing G protein-coupled receptor 5), also known as GPR49 or GPR67, is a 907 amino acid multi-pass membrane protein that contains 17 leucine-rich repeats and belongs to the G protein-coupled receptor family. Expressed in placenta, skeletal muscle and spinal cord, LGR5 functions as an orphan receptor that is thought to play an important role in embryonic growth control and cellular differentiation. Overexpression of LGR5 is associated with increased tumor susceptibility and malignant transformation, implicating LGR5 as a potent tumor-inducing protein.

## CHROMOSOMAL LOCATION

Genetic locus: LGR5 (human) mapping to 12q21.1; Lgr5 (mouse) mapping to 10 D2.

## SOURCE

LGR5 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of LGR5 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-68580 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.

## APPLICATIONS

LGR5 (C-16) is recommended for detection of LGR5 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 LGR5 siRNA (h): sc-62559, LGR5 siRNA (m): sc-62560, LGR5 shRNA Plasmid (h): sc-62559-SH, LGR5 shRNA Plasmid (m): sc-62560-SH, LGR5 shRNA (h) Lentiviral Particles: sc-62559-V and LGR5 shRNA (m) Lentiviral Particles: sc-62560-V.

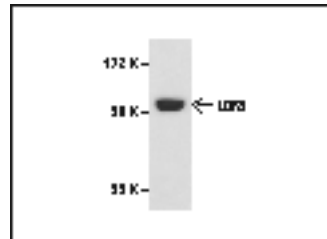
Molecular Weight of LGR5: 100 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810.

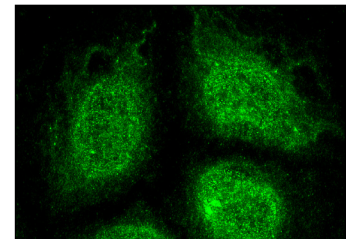
## RECOMMENDED SECONDARY REAGENTS

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



LGR5 (C-16): sc-68580. Western blot analysis of LGR5 expression in skeletal muscle extract.



LGR5 (C-16): sc-68580. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Carpino, G., et al. 2012. Biliary tree stem/progenitor cells in glands of extrahepatic and intrahepatic bile ducts: an anatomical *in situ* study yielding evidence of maturational lineages. *J. Anat.* 220: 186-199.
2. Costa C., et al. 2012. E2F1 loss induces spontaneous tumour development in Rb-deficient epidermis. *Oncogene* 32: 2937-2951.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **LGR5 (2B5B9): sc-517191**, our highly recommended monoclonal alternative to LGR5 (C-16).