LGR4 (C-12): sc-390630

**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. LGR4 (leucine-rich repeat-containing G protein-coupled receptor 4), also known as GPR48, is a 951 amino acid multi-pass membrane protein that contains 15 LRR (leucine-rich repeats) and belongs to the GPCR family. Expressed in multiple tissues, including testis, ovary, placenta, stomach, heart, kidney, pancreas and spleen, LGR4 functions as an orphan receptor that may be involved in physiologic activities throughout the cell. LGR4 is overexpressed in various cancer types and is thought to enhance carcinoma invasiveness and metastasis, suggesting an important role in tumor progression.

**CHROMOSOMAL LOCATION**

Genetic locus: LGR4 (human) mapping to 11p14.1; Lgr4 (mouse) mapping to E3.

**SOURCE**

LGR4 (C-12) is a mouse monoclonal antibody raised against amino acids 810-951 mapping at the C-terminus of LGR4 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LGR4 (C-12) is available conjugated to agarose (sc-390630 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390630 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390630 PE), fluorescein (sc-390630 FITC), Alexa Fluor® 488 (sc-390630 AF488), Alexa Fluor® 546 (sc-390630 AF546), Alexa Fluor® 594 (sc-390630 AF594) or Alexa Fluor® 647 (sc-390630 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390630 AF680) or Alexa Fluor® 790 (sc-390630 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

LGR4 (C-12) is recommended for detection of LGR4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 LGR4 siRNA (h): sc-62557, LGR4 siRNA (m): sc-62558, LGR4 shRNA Plasmid (h): sc-62557-SH, LGR4 shRNA Plasmid (m): sc-62558-SH, LGR4 shRNA (h) Lentiviral Particles: sc-62557-V and LGR4 shRNA (m) Lentiviral Particles: sc-62558-V.

Molecular Weight of LGR4: 104 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, HeLa whole cell lysate: sc-2200 or Neuro-2A whole cell lysate: sc-364185.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP (sc-516102) or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-61214 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 m-IgGk BP-FITC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

LGR4 (C-12) is a recombinant protein produced in E. coli. Western blot analysis of LGR4 expression in SUP-T1 (A), HeLa (B), Neuro-2A (C) and C6 (D) whole cell lysates and human cerebral cortex tissue extract (E).

**SELECT PRODUCT CITATIONS**


**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 for detailed protocols and support products.

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