

LGR6 (F-5): sc-393010

BACKGROUND

G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors and heptahelical receptors, are a protein family which 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. The GPCR family represents the largest class of targets for modern drugs. Leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) is an orphan-A GPCR with an N-terminal ectodomain comprising variable leucine-rich repeats, a 7TM region and a unique C-terminal intracellular tail. The sequence of LGR6 is similar to TSHR, FSHR and LHR. LGR6 is predominantly expressed in the adrenal gland, ovary and uterus.

REFERENCES

- Lameh, J., et al. 1990. Structure and function of G protein-coupled receptors. *Pharm. Res.* 7: 1213-1221.
- Probst, W.C., et al. 1992. Sequence alignment of the G protein-coupled receptor superfamily. *DNA Cell Biol.* 11: 1-20.
- Hsu, S.Y., et al. 2000. The three subfamilies of leucine-rich repeat-containing G protein-coupled receptors (LGR): identification of LGR6 and LGR7 and the signaling mechanism for LGR7. *Mol. Endocrinol.* 14: 1257-1271.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606653. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: LGR6 (human) mapping to 1q32.1; Lgr6 (mouse) mapping to 1 E4.

SOURCE

LGR6 (F-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 471-508 within an internal region of LGR6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LGR6 (F-5) is available conjugated to agarose (sc-393010 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393010 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393010 PE), fluorescein (sc-393010 FITC), Alexa Fluor® 488 (sc-393010 AF488), Alexa Fluor® 546 (sc-393010 AF546), Alexa Fluor® 594 (sc-393010 AF594) or Alexa Fluor® 647 (sc-393010 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393010 AF680) or Alexa Fluor® 790 (sc-393010 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393010 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

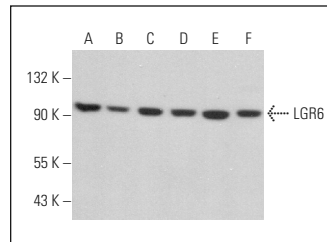
LGR6 (F-5) is recommended for detection of LGR6 isoforms 1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, 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 LGR6 siRNA (h): sc-60932, LGR6 siRNA (m): sc-60933, LGR6 shRNA Plasmid (h): sc-60932-SH, LGR6 shRNA Plasmid (m): sc-60933-SH, LGR6 shRNA (h) Lentiviral Particles: sc-60932-V and LGR6 shRNA (m) Lentiviral Particles: sc-60933-V.

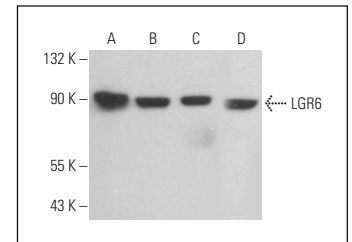
Molecular Weight of LGR6 isoforms: 104/89/99 kDa.

Positive Controls: A-10 cell lysate: sc-3806, A549 cell lysate: sc-2413 or HeLa whole cell lysate: sc-2200.

DATA



LGR6 (F-5): sc-393010. Western blot analysis of LGR6 expression in A-10 (A), L6 (B), AMJ2-C8 (C), Sol8 (D), C2C12 (E) and SK-BR-3 (F) whole cell lysates.



LGR6 (F-5): sc-393010. Western blot analysis of LGR6 expression in HeLa (A), BT-20 (B), A549 (C) and A-10 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Kervarrec, T., et al. 2020. Merkel cell polyomavirus T antigens induce merkel cell-like differentiation in GLI1-expressing epithelial cells. *Cancers* 12: 1989.
- Bhujji, J., et al. 2021. Cutaneous effects of in utero and lactational exposure of C57BL/6J mice to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Toxics* 9: 192.
- Alqahtani, S., et al. 2021. Disruption of pulmonary resolution mediators contribute to exacerbated silver nanoparticle-induced acute inflammation in a metabolic syndrome mouse model. *Toxicol. Appl. Pharmacol.* 431: 115730.
- Li, X., et al. 2022. Maresin 1 alleviates diabetic kidney disease via LGR6-mediated cAMP-SOD2-ROS pathway. *Oxid. Med. Cell. Longev.* 2022: 7177889.

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.

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