

LLGL2 (A-4): sc-376857

BACKGROUND

LLGL2 (lethal giant larvae homolog 2), also referred to as HGL or LGL2, is a cortical cytoskeleton protein that is a part of a larger complex of proteins. The complex, which consists of LGN, PKC ϵ and PAR-6 β , may play a role in ensuring the correct organization and orientation of bipolar spindles for normal cell division and for the initial phase of the establishment of epithelial cell polarity. In *Drosophila melanogaster*, LLGL2 is required in follicle cells for the differentiation of both stalk cells and posterior follicle cells. In humans, LLGL2 may be involved in cell proliferation control and tumorigenesis. Phosphorylation of LLGL2 is induced during cell polarization and may contribute to the segregation of LLGL2 from the PKC ϵ and PAR-6 β complex. Overexpression of LLGL2 is thought to inhibit tight junction formation in cells. LLGL2 is expressed in the cytoplasm and localizes to the perinuclear structure of the cell.

CHROMOSOMAL LOCATION

Genetic locus: LLGL2 (human) mapping to 17q25.1; Llgl2 (mouse) mapping to 11 E2.

SOURCE

LLGL2 (A-4) is a mouse monoclonal antibody raised against amino acids 148-205 mapping within an internal region of LLGL2 of human origin.

PRODUCT

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

LLGL2 (A-4) is available conjugated to agarose (sc-376857 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376857 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376857 PE), fluorescein (sc-376857 FITC), Alexa Fluor® 488 (sc-376857 AF488), Alexa Fluor® 546 (sc-376857 AF546), Alexa Fluor® 594 (sc-376857 AF594) or Alexa Fluor® 647 (sc-376857 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376857 AF680) or Alexa Fluor® 790 (sc-376857 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

LLGL2 (A-4) is recommended for detection of LLGL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 LLGL2 siRNA (h): sc-93661, LLGL2 siRNA (m): sc-146759, LLGL2 shRNA Plasmid (h): sc-93661-SH, LLGL2 shRNA Plasmid (m): sc-146759-SH, LLGL2 shRNA (h) Lentiviral Particles: sc-93661-V and LLGL2 shRNA (m) Lentiviral Particles: sc-146759-V.

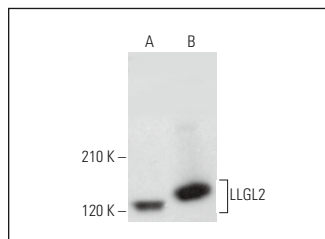
Molecular Weight of LLGL2: 113 kDa.

Positive Controls: MEG-01 cell lysate: sc-2283, F9 cell lysate: sc-2245 or P19 cell lysate: sc-24760.

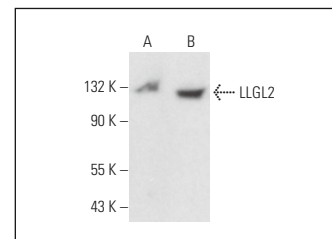
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



LLGL2 (A-4): sc-376857. Western blot analysis of LLGL2 expression in P19 (A) and F9 (B) whole cell lysates.



LLGL2 (A-4): sc-376857. Western blot analysis of LLGL2 expression in MEG-01 (A) and P19 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Bartolomé, R.A., et al. 2014. Cadherin-17 interacts with $\alpha 2\beta 1$ Integrin to regulate cell proliferation and adhesion in colorectal cancer cells causing liver metastasis. *Oncogene* 33: 1658-1669.
- Kharfallah, F., et al. 2017. Scribble1 plays an important role in the pathogenesis of neural tube defects through its mediating effect of Par-3 and Vangl1/2 localization. *Hum. Mol. Genet.* 26: 2307-2320.
- Saito, Y., et al. 2019. LLGL2 rescues nutrient stress by promoting leucine uptake in ER⁺ breast cancer. *Nature* 569: 275-279.
- Choi, J., et al. 2019. Scribble, Erbin, and Lano redundantly regulate epithelial polarity and apical adhesion complex. *J. Cell Biol.* 218: 2277-2293.
- Trojanovsky, R.B., et al. 2021. Basolateral protein Scribble binds phosphatase PP1 to establish a signaling network maintaining apicobasal polarity. *J. Biol. Chem.* 297: 101289.
- Tocan, V., et al. 2021. Hepatocyte polarity establishment and apical lumen formation are organized by Par3, Cdc42, and aPKC in conjunction with Lgl. *J. Biol. Chem.* 297: 101354.
- Saito, Y., et al. 2022. Polarity protein SCRIB interacts with SLC3A2 to regulate proliferation and tamoxifen resistance in ER⁺ breast cancer. *Commun. Biol.* 5: 403.
- Gu, Q.Y., et al. 2023. LLGL2 inhibits ovarian cancer metastasis by regulating cytoskeleton remodeling via ACTN1. *Cancers* 15: 5880.

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.