

LRIG1 (B-2): sc-514577

BACKGROUND

Leucine-rich repeats and immunoglobulin-like domains protein 1, also designated LIG1 or LRIG1, interacts with the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. LRIG1 is a single-pass, type I membrane protein with an ectodomain containing 15 leucine-rich repeats which is sometimes cleaved into N-terminal and C-terminal fragments. LRIG1 is produced in all human glioma cell lines and localizes to perinuclear compartments, cytoplasmic compartments and the cell surface. It acts as a negative feedback regulator of signaling through enhanced receptor ubiquitination and accelerated intracellular degradation. LRIG1 may function as a tumour suppressor since it downregulates the expression of EGF and the related proteins ErbB-2, ErbB-3 and ErbB-4, which all inhibit cancer cells from growth, migration and invasion.

REFERENCES

- Hedman, H., et al. 2002. Is LRIG1 a tumour suppressor gene at chromosome 3p14.3? *Acta Oncol.* 41: 352-354.
- Nilsson, J., et al. 2003. LRIG1 protein in human cells and tissues. *Cell Tissue Res.* 312: 65-71.
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- Laedrich, M.B., et al. 2004. The leucine-rich repeat protein LRIG1 is a negative regulator of ErbB family receptor tyrosine kinases. *J. Biol. Chem.* 279: 47050-47056.
- Ljuslinder, I., et al. 2005. Increased copy number at 3p14 in breast cancer. *Breast Cancer Res.* 7: R719-R727.
- Tanemura, A., et al. 2005. LRIG-1 provides a novel prognostic predictor in squamous cell carcinoma of the skin: immunohistochemical analysis for 38 cases. *Dermatol. Surg.* 31: 423-430.
- Guo, D., et al. 2006. Perinuclear leucine-rich repeats and immunoglobulin-like domain proteins (LRIG1-3) as prognostic indicators in astrocytic tumors. *Acta Neuropathol.* 111: 238-246.

CHROMOSOMAL LOCATION

Genetic locus: LRIG1 (human) mapping to 3p14.1; Lrig1 (mouse) mapping to 6 D2.

SOURCE

LRIG1 (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 727-757 within an extracellular domain of LRIG1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-514577 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LRIG1 (B-2) is recommended for detection of LRIG1 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 LRIG1 siRNA (h): sc-60966, LRIG1 siRNA (m): sc-60967, LRIG1 shRNA Plasmid (h): sc-60966-SH, LRIG1 shRNA Plasmid (m): sc-60967-SH, LRIG1 shRNA (h) Lentiviral Particles: sc-60966-V and LRIG1 shRNA (m) Lentiviral Particles: sc-60967-V.

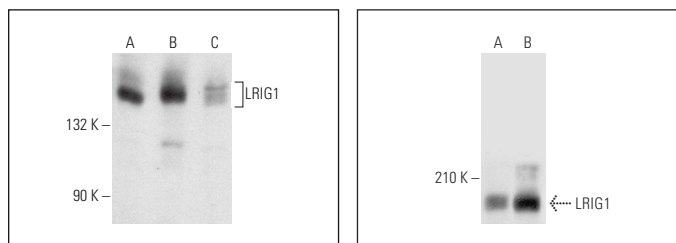
Molecular Weight of LRIG1: 143 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, LNCaP cell lysate: sc-2231 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



LRIG1 (B-2): sc-514577. Western blot analysis of LRIG1 expression in CCRF-CEM (A), LNCaP (B) and 3T3-L1 (C) whole cell lysates.

LRIG1 (B-2): sc-514577. Western blot analysis of LRIG1 expression in ZR-75 (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Kananykhina, E., et al. 2024. Impact of stem cells on reparative regeneration in abdominal and dorsal skin in the rat. *J. Dev. Biol.* 12: 6.

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.