

# Limd1 (H-4): sc-271448

## BACKGROUND

The Zyxin family of proteins contains five members: Ajuba, Limd1, LPP, TRIP6 and Zyxin. Limd1 (LIM domain-containing protein 1) is an ubiquitously expressed tumor suppressor containing three LIM zinc-binding domains. LIM domains consist of a cysteine-rich consensus sequence containing two distinct zinc-binding subdomains, which mediate protein-protein interactions. Limd1 interacts with the proteins SQSTM1, Rb, p62 and TRAF6. Limd1 was first identified when the deletion of its gene was noted in some cervical cancers. Limd1 blocks *in vitro* and *in vivo* tumor growth and is downregulated in lung cancer. Limd1 may regulate osteoclast development under stressful conditions via its interactions with TRAF6 and p62.

## CHROMOSOMAL LOCATION

Genetic locus: LIMD1 (human) mapping to 3p21.31; Limd1 (mouse) mapping to 9 F4.

## SOURCE

Limd1 (H-4) is a mouse monoclonal antibody raised against amino acids 1-57 mapping at the N-terminus of Limd1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Limd1 (H-4) is available conjugated to agarose (sc-271448 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271448 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271448 PE), fluorescein (sc-271448 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271448 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271448 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271448 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271448 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271448 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271448 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

Limd1 (H-4) is recommended for detection of Limd1 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), immunohistochemistry (including paraffin-embedded sections) (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 Limd1 siRNA (h): sc-62561, Limd1 siRNA (m): sc-62562, Limd1 shRNA Plasmid (h): sc-62561-SH, Limd1 shRNA Plasmid (m): sc-62562-SH, Limd1 shRNA (h) Lentiviral Particles: sc-62561-V and Limd1 shRNA (m) Lentiviral Particles: sc-62562-V.

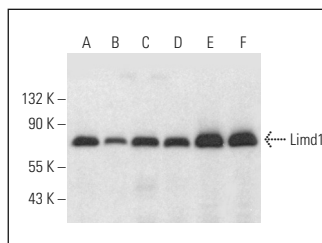
Molecular Weight of Limd1: 73 kDa.

Positive Controls: Y79 cell lysate: sc-2240, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

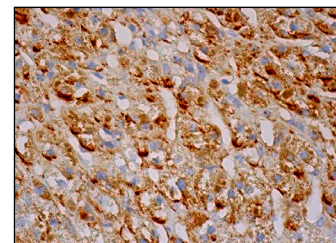
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Limd1 (H-4): sc-271448. Western blot analysis of Limd1 expression in HeLa nuclear extract (A) and Y79 (B), K-562 (C), Hep G2 (D), HEK293 (E) and HeLa (F) whole cell lysates.



Limd1 (H-4): sc-271448. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Wang, L., et al. 2014. Gene expression profiling identifies IRF4-associated molecular signatures in hematological malignancies. *PLoS ONE* 9: e106788.
- Wang, L., et al. 2017. Limd1 is induced by and required for LMP1 signaling, and protects EBV-transformed cells from DNA damage-induced cell death. *Oncotarget* 9: 6282-6297.
- Wang, L., et al. 2019. p62-mediated selective autophagy endows virus-transformed cells with insusceptibility to DNA damage under oxidative stress. *PLoS Pathog.* 15: e1007541.
- Wang, L., et al. 2021. The ubiquitin sensor and adaptor protein p62 mediates signal transduction of a viral oncogenic pathway. *mBio* 12: e0109721.

## STORAGE

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

## PROTOCOLS

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

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