

Limd1 (E-15): sc-55843

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.

REFERENCES

1. Kiss, H., et al. 2000. A novel gene containing LIM domains (Limd1) is located within the common eliminated region 1 (C3CER1) in 3p21.3. *Hum. Genet.* 105: 552-559.
2. Kholodnyuk, I.D., et al. 2001. Inactivation of the human fragile histidine triad gene at 3p14.2 in monochromosomal human/mouse microcell hybrid-derived severe combined immuno-deficient mouse tumors. *Cancer Res.* 60: 7119-7125.
3. Kiss, H., et al. 2001. The LZTFL1 gene is a part of a transcriptional map covering 250 kb within the common eliminated region 1 (C3CER1) in 3p21.3. *Genomics* 73: 10-19.
4. Sharp, T.V., et al. 2004. LIM domains-containing protein 1 (Limd1), a tumor suppressor encoded at chromosome 3p21.3, binds Rb and represses E2F-driven transcription. *Proc. Natl. Acad. Sci. USA* 101: 16531-16536.
5. Petit, M.M., et al. 2005. The tumor suppressor scrib selectively interacts with specific members of the Zyxin family of proteins. *FEBS Lett.* 579: 5061-5068.
6. Petit, M.M., et al. 2005. The tumor suppressor Scrib interacts with the Zyxin-related protein LPP, which shuttles between cell adhesion sites and the nucleus. *BMC Cell Biol.* 6: 1.
7. Feng, Y., et al. 2005. The LIM protein Ajuba influences interleukin-1-induced NF κ B activation by affecting the assembly and activity of the protein kinase C ζ /p62/TRAF6 signaling complex. *Mol. Cell. Biol.* 25: 4010-4022.
8. Kost-Alimova, M., et al. 2007. Modeling non-random deletions in cancer. *Semin. Cancer Biol.* 17: 19-30.

CHROMOSOMAL LOCATION

Genetic locus: LIMD1 (human) mapping to 3p21.31.

SOURCE

Limd1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Limd1 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-55843 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Limd1 (E-15) is recommended for detection of Limd1 of human and rat origin by Western Blotting (starting dilution 1:200, 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).

Limd1 (E-15) is also recommended for detection of Limd1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Limd1 siRNA (h): sc-62561, Limd1 shRNA Plasmid (h): sc-62561-SH and Limd1 shRNA (h) Lentiviral Particles: sc-62561-V.

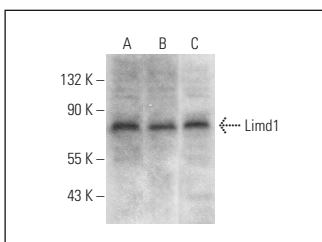
Molecular Weight of Limd1: 73 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Limd1 (E-15): sc-55843. Western blot analysis of Limd1 expression in HEK293 (A), HeLa (B) and IMR-32 (C) whole cell lysates.

RESEARCH USE

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