

LOXL1 (H-11): sc-166632

BACKGROUND

Lysyl oxidase (LOX) proteins belong to a family of enzymes that oxidize primary amine substrates to reactive aldehydes. In fibrillar collagens and elastin, LOX catalyzes the lysine-derived cross-links of collagen fibrils and insoluble elastic fibers in the extracellular matrix. It can localize both to the nucleus and the cytoplasm. LOX is involved in tumor suppression, cell motility, cellular senescence and developmental regulation. There are four homologs of LOX, lysyl oxidase-like proteins, designated LOX-like (LOXL1-LOXL4) proteins. LOXL1 is an extracellular protein that localizes specifically to sites of elastogenesis. It serves as a cross-linking enzyme, controlling the deposition of elastin. LOXL1 interacts with Fibulin-5.

CHROMOSOMAL LOCATION

Genetic locus: LOXL1 (human) mapping to 15q24.1; Loxl1 (mouse) mapping to 9 B.

SOURCE

LOXL1 (H-11) is a mouse monoclonal antibody raised against amino acids 96-260 mapping within an internal region of LOXL1 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.

LOXL1 (H-11) is available conjugated to agarose (sc-166632 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166632 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166632 PE), fluorescein (sc-166632 FITC), Alexa Fluor® 488 (sc-166632 AF488), Alexa Fluor® 546 (sc-166632 AF546), Alexa Fluor® 594 (sc-166632 AF594) or Alexa Fluor® 647 (sc-166632 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166632 AF680) or Alexa Fluor® 790 (sc-166632 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LOXL1 (H-11) is recommended for detection of LOXL1 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 LOXL1 siRNA (h): sc-45220, LOXL1 siRNA (m): sc-45221, LOXL1 siRNA (r): sc-72098, LOXL1 shRNA Plasmid (h): sc-45220-SH, LOXL1 shRNA Plasmid (m): sc-45221-SH, LOXL1 shRNA Plasmid (r): sc-72098-SH, LOXL1 shRNA (h) Lentiviral Particles: sc-45220-V, LOXL1 shRNA (m) Lentiviral Particles: sc-45221-V and LOXL1 shRNA (r) Lentiviral Particles: sc-72098-V.

Molecular Weight of LOXL1 precursor: 56 kDa.

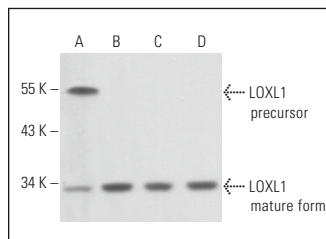
Molecular Weight of mature LOXL1: 32 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or SJRH30 whole cell lysate: sc-2287.

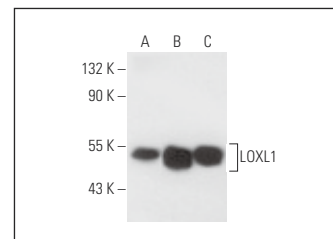
STORAGE

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

DATA



LOXL1 (H-11): sc-166632. Western blot analysis of LOXL1 expression in HeLa (A), NIH/3T3 (B), 3T3-L1 (C) and AMJ2-C8 (D) whole cell lysates.



LOXL1 (H-11): sc-166632. Western blot analysis of LOXL1 expression in Jurkat (A), HeLa (B) and SJRH30 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

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- Busnadiego, O., et al. 2015. Elevated expression levels of lysyl oxidases protect against aortic aneurysm progression in Marfan syndrome. *J. Mol. Cell. Cardiol.* 85: 48-57.
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- Hormaechea-Agulla, D., et al. 2017. The oncogenic role of the In1-ghrelin splicing variant in prostate cancer aggressiveness. *Mol. Cancer* 16: 146.
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- Wang, H., et al. 2021. An *in situ* activity assay for lysyl oxidases. *Commun. Biol.* 4: 840.
- Cummins, K.A., et al. 2021. A scalable 3D tissue culture pipeline to enable functional therapeutic screening for pulmonary fibrosis. *APL Bioeng.* 5: 046102.
- Garcia, B., et al. 2021. A non-invasive determination of LOXL1 and Fibulin-5 levels in the vaginal secretions of women with and without pelvic organ prolapse. *J. Med. Res. Surg.* 2: 10.52916/jmrs214042.
- Liburkin-Dan, T., et al. 2022. Knock-out of the five lysyl-oxidase family genes enables identification of lysyl-oxidase pro-enzyme regulated genes. *Int. J. Mol. Sci.* 23: 11322.

RESEARCH USE

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

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