

# LOXL1 (N-20): sc-48720

## 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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LOXL1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-48720 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

LOXL1 (N-20) is recommended for detection of LOXL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

LOXL1 (N-20) is also recommended for detection of LOXL1 in additional species, including equine, canine, bovine and porcine.

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.

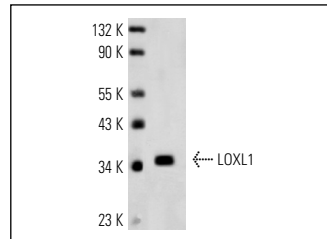
Molecular Weight of mature LOXL1: 32 kDa.

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

## 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



LOXL1 (N-20): sc-48720. Western blot analysis of processed LOXL1 expression in Jurkat whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Saad, F.A., et al. 2010. Intracellular lysyl oxidase: effect of a specific inhibitor on nuclear mass in proliferating cells. *Biochem. Biophys. Res. Commun.* 396: 944-949.
2. Alarab, M., et al. 2010. LOX family enzymes expression in vaginal tissue of premenopausal women with severe pelvic organ prolapse. *Int. Urogynecol. J.* 21: 1397-1404.
3. Zhao, B.H. and Zhou, J.H. 2012. Decreased expression of elastin, fibulin-5 and lysyl oxidase-like 1 in the uterosacral ligaments of postmenopausal women with pelvic organ prolapse. *J. Obstet. Gynaecol. Res.* 38: 925-931.
4. Xie, J., et al. 2013. Differential expressions of lysyl oxidase family in ACL and MCL fibroblasts after mechanical injury. *Injury* 44: 893-900.
5. Xie, J., et al. 2013. TNF- $\alpha$  induced down-regulation of lysyl oxidase family in anterior cruciate ligament and medial collateral ligament fibroblasts. *Knee* 21: 47-53.

## RESEARCH USE

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



Try **LOXL1 (H-11): sc-166632**, our highly recommended monoclonal alternative to LOXL1 (N-20).