

# LOXL4 (N-14): sc-48731

## BACKGROUND

Lysyl oxidase (LOX) proteins belong to a family of enzymes that oxidize primary amine substrated to reactive aldehydes. In fibrillar collagens and elastin, LOX catalyzes the lysine-derived cross-links of collagen fibrils and insoluble elastic fibers within 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. LOXL4 is an extracellular protein that is widely expressed. Highest expression levels have been detected in testis, pancreas, cartilage and skeletal muscle.

## REFERENCES

1. Ito, H., et al. 2001. Molecular cloning and biological activity of a novel LOX-related gene expressed in cartilage. *J. Biol. Chem.* 276: 24023-24029.
2. Asuncion, L., et al. 2001. A novel human lysyl oxidase-like gene (LOXL4) on chromosome 10q24 has an altered scavenger receptor cysteine rich domain. *Matrix Biol.* 20: 487-491.
3. Maki, J.M., et al. 2001. Cloning and characterization of a fifth human LOX isoenzyme: the third member of the LOX-related subfamily with four scavenger receptor cysteine-rich domains. *Matrix Biol.* 20: 493-496.
4. Kirschmann, D.A., et al. 2002. A molecular role for LOX in breast cancer invasion. *Cancer Res.* 62: 4478-4483.
5. Bronson, N.W., et al. 2005. LOXL null mice demonstrate selective dentate structural changes but maintain dentate granule cell and CA1 pyramidal cell potentiation in the hippocampus. *Neurosci. Lett.* 390: 118-122.
6. Kim, D.J., et al. 2008. Lysyl oxidase like 4, a novel target gene of TGFβ1 signaling, can negatively regulate TGFβ1-induced cell motility in PLC/PRF/5 hepatoma cells. *Biochem. Biophys. Res. Commun.* 373: 521-527.

## CHROMOSOMAL LOCATION

Genetic locus: LOXL4 (human) mapping to 10q24.2; Loxl4 (mouse) mapping to 19 C3.

## SOURCE

LOXL4 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LOXL4 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-48731 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.

## RESEARCH USE

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

## APPLICATIONS

LOXL4 (N-14) is recommended for detection of LOXL4 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

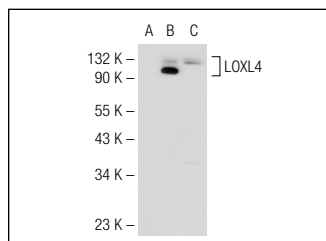
LOXL4 (N-14) is also recommended for detection of LOXL4 in additional species, including canine and bovine.

Suitable for use as control antibody for LOXL4 siRNA (h): sc-45226, LOXL4 siRNA (m): sc-45227, LOXL4 shRNA Plasmid (h): sc-45226-SH, LOXL4 shRNA Plasmid (m): sc-45227-SH, LOXL4 shRNA (h) Lentiviral Particles: sc-45226-V and LOXL4 shRNA (m) Lentiviral Particles: sc-45227-V.

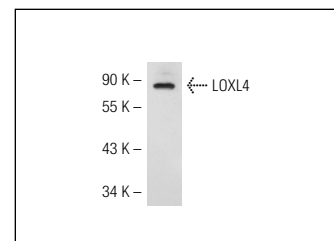
Molecular Weight of LOXL4: 84 kDa.

Positive Controls: LOXL4 (h3): 293T Lysate: sc-158696, HeLa whole cell lysate: sc-2200 or HOS cell lysate: sc-2275.

## DATA



LOXL4 (N-14): sc-48731. Western blot analysis of LOXL4 expression in non-transfected 293T: sc-117752 (A), human LOXL4 transfected 293T: sc-158696 (B) and HeLa (C) whole cell lysates.



LOXL4 (N-14): sc-48731. Western blot analysis of LOXL4 expression in HOS whole cell lysate.

## PROTOCOLS

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



Try **LOXL4 (D-11): sc-374121** or **LOXL4 (B-6): sc-365822**, our highly recommended monoclonal alternatives to LOXL4 (N-14).