

LOXL4 (h): 293 Lysate: sc-111153

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 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., Akiyama, H., Iguchi, H., Iyama, K., Miyamoto, M., Ohsawa, K. and Nakamura, T. 2001. Molecular cloning and biological activity of a novel LOX-related gene expressed in cartilage. *J. Biol. Chem.* 276: 24023-24029.
2. Asuncion, L., Fogelgren, B., Fong, K.S., Fong, S.F., Kim, Y. and Csiszar, K. 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., Tikkanen, H. and Kivirikko, K.I. 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., Seftor, E.A., Fong, S.F., Nieva, D.R., Sullivan, C.M., Edwards, E.M., Sommer, P., Csiszar, K. and Hendrix, M.J. 2002. A molecular role for LOX in breast cancer invasion. *Cancer Res.* 62: 4478-4483.
5. Bronson, N.W., Hamilton, J.S., Han, M., Li, P.A., Hornstra, I., Horowitz, J.M. and Horwitz, B.A. 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., Lee, D.C., Yang, S.J., Lee, J.J., Bae, E.M., Kim, D.M., Min, S.H., Kim, S.J., Kang, D.C., Sang, B.C., Myung, P.K., Park, K.C. and Yeom, Y.I. 2008. Lysyl oxidase like 4, a novel target gene of TGF β 1 signaling, can negatively regulate TGF β 1-induced cell motility in PLC/PRF/5 hepatoma cells. *Biochem. Biophys. Res. Commun.* 373: 521-527.
7. Weise, J.B., Rudolph, P., Heiser, A., Kruse, M.L., Hedderich, J., Cordes, C., Hoffmann, M., Brant, O., Ambrosch, P., Csiszar, K. and Görögh, T. 2008. LOXL4 is a selectively expressed candidate diagnostic antigen in head and neck cancer. *Eur. J. Cancer* 44: 1323-1331.

CHROMOSOMAL LOCATION

Genetic locus: LOXL4 (human) mapping to 10q24.2.

PRODUCT

LOXL4 (h): 293 Lysate represents a lysate of human LOXL4 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

LOXL4 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive LOXL4 antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.