



LOX (LYOX, Lysyl Oxidase, MGC105112, Protein-Lysine 6-Oxidase)

Catalog number

L3514-50B

Supplier

United States Biological

Lysyl oxidase (LOX), a copper-containing amine oxidase, belongs to a heterogeneous family of enzymes that oxidize primary amine substrates to reactive aldehydes. It plays a vital role in the formation and repair of the extracellular matrix. In addition, LOX is a multifunctional enzyme having diverse biological functions such as developmental regulation, tumor suppression, cell motility, and cellular senescence. The secreted form of LOX is responsible for the invasive properties of hypoxic human cancer cells. Thus, it is essential for hypoxia-induced metastasis and is a good therapeutic target for preventing and treating metastases.

Applications

Suitable for use in Western Blot and Immunohistochemistry. Other applications not tested.

Recommended Dilution

Western Blot: 1:1000-1:5000. A band is seen at ~58kD. May see bands at ~32kD (mature, secreted form), 50kD and 58kD (pro and glycosylated forms) since L3514-50B is a highly glycosylated protein. Immunohistochemistry (Paraffin): 1:200
Optimal dilutions to be determined by the researcher.

Positive Control

Human kidney lysate, mouse kidney lysate

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Two synthetic peptides corresponding to aa200-300 from human LOX and aa300-400 also from human LOX. Cellular Localization: Cytosolic, nuclear. Species Sequence Homology (92%): Chicken, zebrafish, xenopus.

Formulation

Supplied as a liquid in Tris-glycine, 150mM sodium chloride, 0.02% sodium azide.

Purity

Purified by ammonium sulfate precipitation.

Specificity

Recognizes human LOX. Species Crossreactivity: Mouse, rat, bovine, porcine.

**Product Type**

Pab

Source

human

Isotype

IgG

Grade

Purified

Applications

IHC WB

Crossreactivity

Bo Hu Mo Po Rt

Storage

-20°C

Reference

1. Trackman, PC., et al. Post-translational glycosylation and proteolytic processing of a lysyl oxidase precursor. J. Cell Biol. 267(12): 8666-8671 (1992).
2. Erler, JT., et al. Lysyl oxidase is essential for hypoxia-induced metastasis. Nature. 440(27): 1222-1226 (2006).
3. Thomassin, L., et al. The Pro-regions of lysyl oxidase and lysyl oxidase-like 1 are required for deposition onto elastic fibers. J. Biol. Chem. 280(52): 42848-55 (2005).