

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Lysyl Oxidase Homolog 2/LOXL2 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 262418
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Lysyl Oxidase Homolog 2/LOXL2 Gln26-Gln744 (predicted)
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Lysyl Oxidase Homolog 2/LOXL2 under non-reducing conditions only (Catalog # 2639-AO)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Lysyl Oxidase Homolog 2/LOXL2 (Catalog # 2639-AO), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Lysyl Oxidase Homolog 2 (lysyl oxidase-like protein 2, LOXL2) is a member of lysyl oxidase-like (LOXL) gene family which includes LOXL1 through LOXL4. These enzymes are secreted copper-binding amine oxidases that oxidize primary amine substrates to aldehydes (1). The N-terminal region of LOXL2 contains four scavenger receptor cysteine-rich (SRCR) domains, and the C-terminal region is a catalytic domain similar to other lysyl oxidases (1). The catalytic domain contains conserved residues required for copper binding and formation of a lysyl tyrosylquinone co-factor (2). Although some of the LOXL enzymes are known to cross-link collagen and elastin substrates, such a function has yet to be characterized for LOXL2. It has been shown that LOXL2 promotes cell migration and tumor cell invasiveness (3, 4). Elevated expression of LOXL2 is also associated with cancer progression in various tumors and carcinoma cell lines, which makes it a potential marker for prognosis of cancer (5). LOXL2 is expressed in many tissues, with elevated levels in reproductive tissues such as placenta, uterus, and prostate (6).

References:

1. Csiszar, H. (2001) *Prog. Nucleic Acid Res. Mol. Biol.* **70**:1.
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3. Akiri, G. *et al.* (2003) *Cancer Res.* **63**:1657.
4. Hollosi, P. *et al.* (2009) *Int. J. Cancer.* **125**:318.
5. Peinado, H. *et al.* (2008) *Cancer Res.* **68**:4541.
6. Jourdan-Le Saux C. *et al.* (1999) *J. Biol. Chem.* **274**:12939.