

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Lysyl Oxidase Homolog 2/LOXL2 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Lysyl Oxidase Homolog 2/LOXL2 Gln26-Gln774 Accession # AAH00594
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

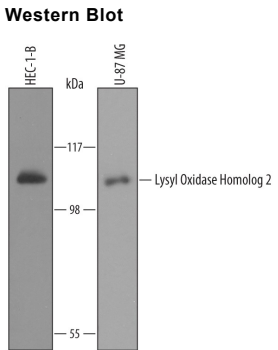
APPLICATIONS

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	See Below
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
Simple Western	10 µg/mL	See Below

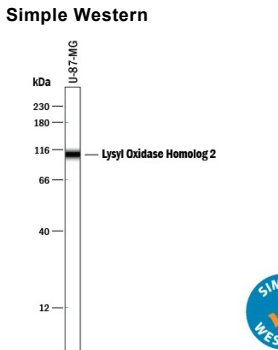
DATA

Western Blot



Detection of Human Lysyl Oxidase Homolog 2/LOXL2 by Western Blot. Western blot shows lysates of HEC-1-B human endometrial adenocarcinoma cell line and U-87 MG human glioblastoma/astrocytoma cell line. PVDF Membrane was probed with 1 µg/mL of Goat Anti-Human Lysyl Oxidase Homolog 2/LOXL2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2639) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Lysyl Oxidase Homolog 2/LOXL2 at approximately 105 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Simple Western



Detection of Human Lysyl Oxidase Homolog 2/LOXL2 by Simple Western™. Simple Western lane view shows lysates of U-87 MG human glioblastoma/astrocytoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Lysyl Oxidase Homolog 2/LOXL2 at approximately 109 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Lysyl Oxidase Homolog 2/LOXL2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2639) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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.
2. Maki, J.M. and K.I. Kivirikko (2001) *Biochem J.* **355**:381.
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.