



# SZABO SCANDIC

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## Produktinformation



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# PRODUCT INFORMATION



## LOXL2 (human, recombinant)

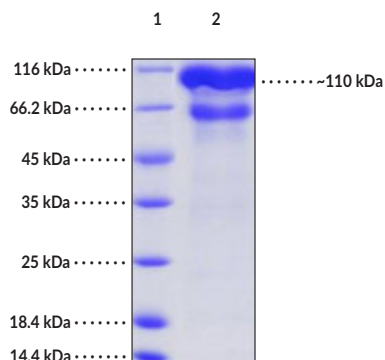
Item No. 42182

### Overview and Properties

**Synonyms:** Lysyl Oxidase-like Protein 2, Lysyl Oxidase-like 2  
**Source:** Active recombinant human C-terminal His-tagged LOXL2 expressed in CHO cells  
**Amino Acids:** 1-774 (full length)  
**Molecular Weight:** 85.5 kDa  
**Storage:** -80°C (as supplied)  
**Stability:** ≥1 year  
**Purity:** ≥95% estimated by SDS-PAGE  
**Supplied in:** Lyophilized from sterile 20 mM MES, with 50 mM sodium chloride  
**Endotoxin Testing:** <1.0 EU/μg, determined by the LAL endotoxin assay  
**Bioactivity:** See figures for details  
**Specific Activity:** batch specific

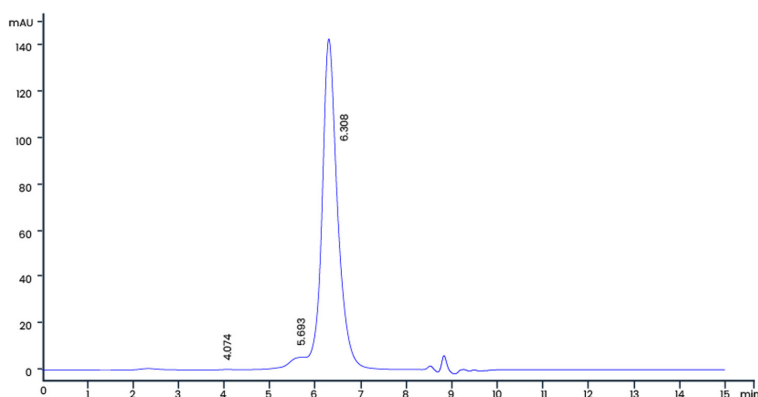
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: LOXL2

**SDS-PAGE Analysis of LOXL2.** This protein has a calculated molecular weight of 85.5 kDa. It has an apparent molecular weight of approximately 110-116 kDa by SDS-PAGE under reducing conditions due to glycosylation.



**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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# PRODUCT INFORMATION



## Description

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Lysyl oxidase-like 2 (LOXL2) is a copper-dependent amine oxidase and member of the LOX family.<sup>1</sup> It is composed of four N-terminal scavenger receptor cysteine-rich (SRCR) domains and a conserved C-terminal catalytic domain containing a copper-binding site.<sup>1,2</sup> LOXL2 is secreted by fibroblasts and reproductive epithelial cells and oxidizes lysines to reactive aldehydes to cross-link extracellular matrix (ECM) proteins, such as collagen or elastin.<sup>1</sup> It has roles in connective tissue development, ECM remodeling, fibrosis, and cancer invasion and metastasis. It also oxidizes dimethylated lysine 4 on histone H3 (H3K4me2) and H3K4me3 and reduces the levels of E-cadherin *in vitro*.<sup>3</sup> The levels of LOXL2 are increased in the airway epithelium in a mouse model of ovalbumin-induced asthma and in patients with asthma.<sup>4</sup> Hepatocyte levels of LOXL2 are increased in patients with Wilson's disease or primary biliary cirrhosis and in patients infected with hepatitis B or -C.<sup>5</sup> Cayman's LOXL2 (human, recombinant) protein can be used for enzyme activity assays. This protein has a calculated molecular weight of 85.5 kDa and a predicted N-terminus of Gly26 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 110-116 kDa due to glycosylation.

## References

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1. Cano, A., Eraso, P., Mazón, M.J., *et al.* LOXL2 in cancer: A two-decade perspective. *Int. J. Mol. Sci.* **24(18)**, 14405 (2023).
2. Zhang, X., Wang, Q., J., W., *et al.* Crystal structure of human lysyl oxidase-like 2 (hLOXL2) in a precursor state. *Proc. Natl. Acad. Sci. USA* **115(5)**, 3828-3833 (2018).
3. Herranz, N., Dave, N., Millanes-Romero, A., *et al.* Lysyl oxidase-like 2 (LOXL2) oxidizes trimethylated lysine 4 in histone H3. *FEBS J.* **283(23)**, 4263-4273 (2016).
4. Zeng, R., Zhang, D., Zhang, J., *et al.* Targeting lysyl oxidase like 2 attenuates OVA-induced airway remodeling partly via the AKT signaling pathway. *Respir. Res.* **25(1)**, 230 (2024).
5. Vadasz, Z., Kessler, O., Akiri, G., *et al.* Abnormal deposition of collagen around hepatocytes in Wilson's disease is associated with hepatocyte specific expression of lysyl oxidase and lysyl oxidase like protein-2. *J. Hepatol.* **43(3)**, 499-507 (2005).

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