



LD Biopharma, Inc.
7384 Trade Street, Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human LOXL3 Protein
Catalog Number: hRP-1984
Manufacturer: LD Biopharma, Inc.

Introduction

Human lysyl oxidase homolog 3 (LOXL3) gene encodes a lysyl oxidase, which likely functions as an amine oxidase and plays a role in the formation of crosslinks in collagens and elastin. Deletion of the related gene in mouse causes neonatal mortality with cleft palate, spine deformity, and defects in collagen organization. A mutation in this gene was found in a family with Stickler syndrome.

Full-length mature form of human LOXL3 cDNA (26 - 753aa. Isoform-I) was constructed with codon optimization gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (33aa) fusion at its N-terminal. It was expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: LOXL3 (LOXL)
Accession Number: NP_115992.1
Species: Human
Size: 20 µg / Vial
Composition: 0.2 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Alzahrani F, et al., *LOXL3, encoding lysyl oxidase-like 3, is mutated in a family with autosomal recessive Stickler syndrome*. Hum. Genet. 134 (4), 451-453 (2015)

Xie J, et al., *TGF-beta1 induces the different expressions of lysyl oxidases and matrix metalloproteinases in anterior cruciate ligament and medial collateral ligament fibroblasts after mechanical injury*



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J Biomech 46 (5), 890-898 (2013)

Sebban S, et al., *Lysyl oxidase-like 4 is alternatively spliced in an anatomic site-specific manner in tumors involving the serosal cavities*
Virchows Arch. 454 (1), 71-79 (2009)

Lee JE, et al., *A tissue-specific variant of the human lysyl oxidase-like protein 3 (LOXL3) functions as an amine oxidase with substrate specificity*. J. Biol. Chem. 281 (49), 37282-37290 (2006)

Applications

1. May be used for in vitro LOXL3 mediated amine oxidase in the formation of cross-links in collagens and elastin pathway regulation study for various cells by using this protein either as soluble factor or as coating matrix protein.
2. May be used for mapping protein-protein interaction.
3. Potential biomarker protein for monitoring tumor prognosis.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGFEGSTSSPSPSTGPEKKAGSQGLRFRLAGFPRKPYEG
RVEIQRAGEWGTICDDDFTLQAAHILCRELGFTTEATGWTHSAKYGPGTGRIWLDNLS CSGTEQS
VTECASRGWGNSDCTHDEDAGVICKDQRLPGFSDSNVIEVEHHLQVEEVRIRPAVGWGRRPLPV
TEGLVEVRLPDGWSQVCDKGWSAHNSHVCGMLGFPSEKRVNAAFYRLLAQRQQHSFGLHGVAC
VGTEAHL SLSLEFYRANDTARCPGGGPAVVSCVPGPVYAASSGQKKQQQSKPQGEARVRLKGG
AHPGEGRVEVLKASTWGTVCDR KWLHAASVVCRELGFSGAREALSGARMQGMGAIHLSEVRC
SGQELSLWKCPHKNITAEDCSHSQDAGVRCNLPTGAETRI RLSGGRSQHEGRVEVQIGGPGPL
RWGLICGDDWGTLEAMVACRQLGLGYANHGLQETWYWD SGNITEVVMMSGVRCTGTELSLDQCAH
HGTHITCKRTGTRFTAGVICSETASDLLLHSALVQETAYIEDRPLHMLYCAA EENCLASSARSA
NWPYGHRLLRFSSQIHN LGRADFRPKAGRHSWWHECHGHYHSMDIFTHYDILTPNGTKVAEG
HKASFLEDTECQEDVSKRYECANFGEQGITVGCWDLYRHDIDCQWIDITDVKPGNYILQVVIN
PNFEVAESDFTNNAMKCNCKYDGHRIWVHNCHIGDAFSEEANRRFERYPGQTSNQII



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