

Datasheet for ABIN2859246

LOXL2 ELISA Kit**1** Image[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	LOXL2
Binding Specificity:	AA 26-774
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human LOXL2
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Cell Lysate, Tissue Homogenate, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: Q26-Q774
Specificity:	NSO, Q26-Q774
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	LOXL2
Alternative Name:	LOXL2 (LOXL2 Products)
Background:	<p>Protein Function: Mediates the post-translational oxidative deamination of lysine residues on target proteins leading to the formation of deaminated lysine (allysine). When secreted in extracellular matrix, promotes cross-linking of extracellular matrix proteins by mediating oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin. Acts as a regulator of sprouting angiogenesis, probably via collagen IV scaffolding. When nuclear, acts as a transcription corepressor and specifically mediates deamination of trimethylated 'Lys-4' of histone H3 (H3K4me3), a specific tag for epigenetic transcriptional activation. Involved in epithelial to mesenchymal transition (EMT) via interaction with SNAI1 and participates in repression of E- cadherin, probably by mediating deamination of histone H3. Also involved in E-cadherin repression following hypoxia, a hallmark of epithelial to mesenchymal transition believed to amplify tumor aggressiveness, suggesting that it may play a role in tumor progression. Acts as a regulator of chondrocyte differentiation, probably by regulating expression of factors that control chondrocyte differentiation. .</p> <p>Background: Lysyl oxidase homolog 2 is an enzyme that in humans is encoded by the LOXL2 gene. This gene encodes a member of the lysyl oxidase gene family. The prototypic member of the family is essential to the biogenesis of connective tissue, encoding an extracellular copper-dependent amine oxidase that catalyses the first step in the formation of crosslinks in collagens and elastin. A highly conserved amino acid sequence at the C-terminus end appears to be sufficient for amine oxidase activity, suggesting that each family member may retain this function. The N-terminus is poorly conserved and may impart additional roles in developmental regulation, senescence, tumor suppression, cell growth control, and chemotaxis to each member of the family. LOXL2 can also crosslink collagen type IV and hence influence the sprouting of new blood vessels.</p> <p>Synonyms: Lysyl oxidase homolog 2,1.4.3.13,Lysyl oxidase-like protein 2,Lysyl oxidase-related protein 2,Lysyl oxidase-related protein WS9-14,LOXL2,</p>

Target Details

Full Gene Name: Lysyl oxidase homolog 2

Cellular Localisation: Secreted, extracellular space, extracellular matrix, basement membrane . Nucleus. Chromosome. Associated with chromatin. It is unclear how LOXL2 is nuclear: it contains a clear signal sequence and is predicted to localize in the extracellular medium. However, different reports confirmed the intracellular location and its key role in transcription regulation.

Gene ID:	4017
UniProt:	Q9Y4K0
Pathways:	Chromatin Binding

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Tissue Specificity: Expressed in many tissues. Highest expression in reproductive tissues, placenta, uterus and prostate. Up- regulated in a number of cancers cells and tissues.
Plate:	Pre-coated
Protocol:	human LOXL2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for LOXL2 has been precoated onto 96-well plates. Standards (NSO,Q26-Q774) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for LOXL2 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human LOXL2 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human LOXL2 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, cell lysates, tissue homogenates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human LOXL2 standard solution and each sample be measured in duplicate.

Application Details

Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 1589, Standard deviation: 79.45, CV(%): 5.0• Sample 2: n=16, Mean(pg/ml): 3122, Standard deviation: 171.71, CV(%): 5.5• Sample 3: n=16, Mean(pg/ml): 7510, Standard deviation: 435.58, CV(%): 5.8,• Sample 1: n=24, Mean(pg/ml): 1466, Standard deviation: 76.23, CV(%): 5.2• Sample 2: n=24, Mean(pg/ml): 4236, Standard deviation: 258.39, CV(%): 6.1• Sample 3: n=24, Mean(pg/ml): 6998, Standard deviation: 447.87, CV(%): 6.4
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Restrictions:	For Research Use only
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Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
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Storage:	-20 °C,4 °C
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Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
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Expiry Date:	12 months
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Images

