



Rabbit Anti-LOXL2 antibody

SL6544R

Product Name:	LOXL2
Chinese Name:	赖氨酰氧化酶相关蛋白2抗体
Alias:	LOR 2; LOR2; LOX L2; LOXL 2; LOXL2; LOXL2_HUMAN; Lysyl oxidase homolog 2; Lysyl oxidase like 2; Lysyl oxidase like protein 2; Lysyl oxidase related 2; Lysyl oxidase related protein 2; Lysyl oxidase related protein WS9 14; Lysyl oxidase-like protein 2; Lysyl oxidase-related protein 2; Lysyl oxidase-related protein WS9-14; WS9 14.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	87kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human LOXL2:621-720/774
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. [provided by RefSeq, Jul 2008].

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.

Subunit:

Component of some chromatin repressor complex. Interacts with SNAI1.

Subcellular Location:

Secreted, extracellular space, extracellular matrix, basement membrane (By similarity). Nucleus. Chromosome. Note=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.

Tissue Specificity:

Expressed in many tissues. Highest expression in reproductive tissues, placenta, uterus and prostate.

Post-translational modifications:

The lysine tyrosylquinone cross-link (LTQ) is generated by condensation of the epsilon-amino group of a lysine with a topaquinone produced by oxidation of tyrosine. [PTM] N-glycosylated. N-glycosylation on Asn-455 and Asn-644 may be essential for proper folding and secretion; may be composed of a fucosylated carbohydrates attached to a trimannose N-linked glycan core.

Similarity:

Belongs to the lysyl oxidase family.

Contains 4 SRCR domains.

SWISS:
Q9Y4K0

Gene ID:
4017

Database links:

[Entrez Gene: 4017](#)Human

[Entrez Gene: 94352](#)Mouse

[Entrez Gene: 290350](#)Rat

[Oimim: 606663](#)Human

[SwissProt: Q9Y4K0](#)Human

[SwissProt: P58022](#)Mouse

[SwissProt: B5DF27](#)Rat

[Unigene: 626637](#)Human

[Unigene: 661130](#)Human

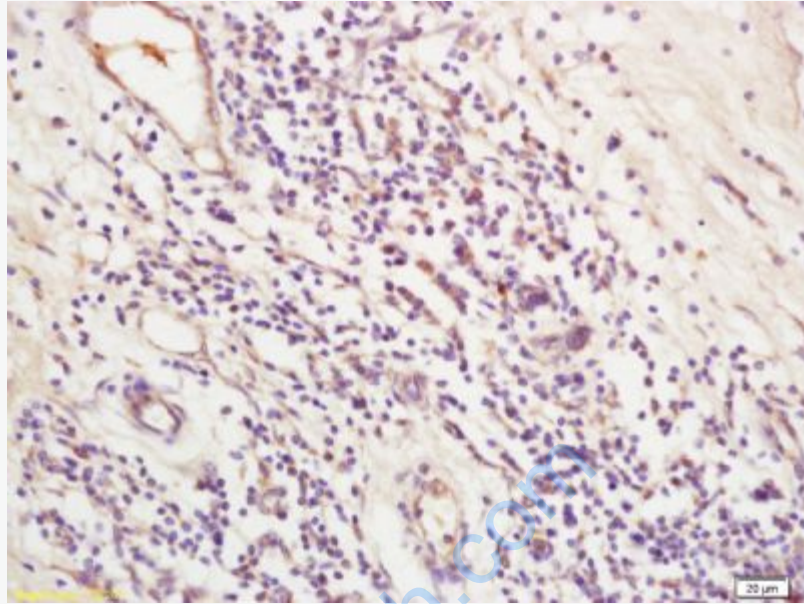
[Unigene: 116714](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Post-translational modifications:

The lysine tyrosylquinone cross-link (LTQ) is generated by condensation of the epsilon-amino group of a lysine with a topaquinone produced by oxidation of tyrosine.



Picture:

Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-LOXL2 Polyclonal Antibody, Unconjugated(SL6544R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining