

**Product Name: LOXL2 (9U1) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe13377**



## Summary

<b>Production Name</b>	LOXL2 (9U1) Rabbit Monoclonal Antibody
<b>Description</b>	Rabbit Monoclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	LOXL2
<b>Alternative Names</b>	LOR2; LOX L2; LOXL2; Lysyl oxidase homolog 2; Lysyl oxidase like 2; WS9 14;
<b>Gene ID</b>	4017.0
<b>SwissProt ID</b>	Q9Y4K0.

## Application

<b>Dilution Ratio</b>	WB 1:500-1:2000
<b>Molecular Weight</b>	87kDa

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## Background

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. Mediates the post-translational oxidative deamination of lysine residues on target proteins leading to the formation of deaminated lysine (allysine) (PubMed: [27735137](http://www.uniprot.org/citations/27735137)). Acts as a transcription corepressor and specifically mediates deamination of trimethylated 'Lys-4' of histone H3 (H3K4me3), a specific tag for epigenetic transcriptional activation (PubMed: [27735137](http://www.uniprot.org/citations/27735137)). Shows no activity against histone H3 when it is trimethylated on 'Lys-9' (H3K9me3) or 'Lys-27' (H3K27me3) or when 'Lys-4' is monomethylated (H3K4me1) or dimethylated (H3K4me2) (PubMed: [27735137](http://www.uniprot.org/citations/27735137)). Also mediates deamination of methylated TAF10, a member of the transcription factor IID (TFIID) complex, which induces release of TAF10 from promoters, leading to inhibition of TFIID-dependent transcription (PubMed: [25959397](http://www.uniprot.org/citations/25959397)). LOXL2-mediated deamination of TAF10 results in transcriptional repression of genes required for embryonic stem cell pluripotency including POU5F1/OCT4, NANOG, KLF4 and SOX2 (By similarity). Involved in epithelial to mesenchymal transition (EMT) via interaction with SNAI1 and participates in repression of E-cadherin CDH1, probably by mediating deamination of histone H3 (PubMed: [16096638](http://www.uniprot.org/citations/16096638), PubMed: [27735137](http://www.uniprot.org/citations/27735137), PubMed: [24414204](http://www.uniprot.org/citations/24414204)). During EMT, involved with SNAI1 in negatively regulating pericentromeric heterochromatin transcription (PubMed: [24239292](http://www.uniprot.org/citations/24239292)). SNAI1 recruits LOXL2 to pericentromeric regions to oxidize histone H3 and repress transcription which leads to release of heterochromatin component CBX5/HP1A, enabling chromatin reorganization and acquisition of mesenchymal traits (PubMed: [24239292](http://www.uniprot.org/citations/24239292)). Interacts with the endoplasmic reticulum protein HSPA5 which activates the IRE1-XBP1 pathway of the unfolded protein response, leading to expression of several transcription factors involved in EMT and subsequent EMT induction (PubMed: [28332555](http://www.uniprot.org/citations/28332555)). Involved in E-cadherin repression following hypoxia, a hallmark of EMT believed to amplify tumor aggressiveness, suggesting that it may play a role in tumor progression (PubMed: [20026874](http://www.uniprot.org/citations/20026874)). When secreted into the extracellular matrix, promotes cross-linking of extracellular matrix proteins by mediating oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin (PubMed: [20306300](http://www.uniprot.org/citations/20306300)). Acts as a regulator of sprouting angiogenesis, probably via collagen IV scaffolding (PubMed: [21835952](http://www.uniprot.org/citations/21835952)). Acts as a regulator of chondrocyte differentiation, probably by regulating expression of

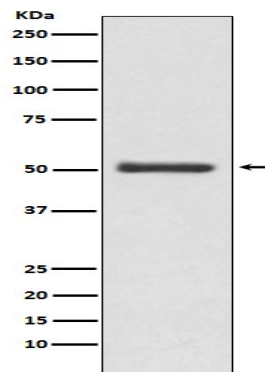
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factors that control chondrocyte differentiation (By similarity).

## Research Area

## Image Data



Western blot analysis of LOXL2 expression in MCF7 cell lysate.

## Note

For research use only.