

LOXL2 Rabbit mAb

Catalog No: #52400



Package Size: #52400-1 50ul #52400-2 100ul

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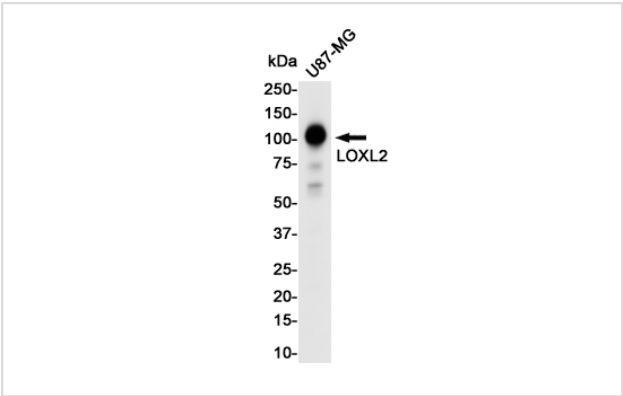
Description

Product Name	LOXL2 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	S09-7J5
Isotype	Rabbit IgG
Purification	Affinity Purified
Applications	WB
Species Reactivity	Human,Mouse,Rat
Immunogen Description	A synthetic peptide of human LOXL2
Conjugates	Unconjugated
Modification	Unmodification
Other Names	LOR2; LOX L2; LOXL2; Lysyl oxidase homolog 2; Lysyl oxidase like 2; WS9 14;
Accession No.	Swiss-Prot:Q9Y4K0GeneID:4017
Uniprot	Q9Y4K0
GeneID	4017
Calculated MW	Calculated MW: 87 kDa; Observed MW: 105 kDa
Concentration	0.3 mg/ml
Formulation	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Application Details

WB: 1/1000

Images



Western blot detection of LOXL2 in U87-MG cell lysates using LOXL2 Rabbit mAb(1:1000 diluted).Predicted band size:87KDa.Observed band size:105KDa.

Background

Swiss-Prot Acc.Q9Y4K0. Mediates the post-translational oxidative deamination of lysine residues on target proteins leading to the formation of deaminated lysine (allysine) (PubMed: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). 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). 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). LOXL2-mediated deamination of TAF10 results in transcriptional repression of genes required for embryonic stem cell pluripotency including POU5F1/OCT4, NANOG, KLF4 and SOX2. 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, PubMed:27735137, PubMed:24414204). During EMT, involved with SNAI1 in negatively regulating pericentromeric heterochromatin transcription (PubMed: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). 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). 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). 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). Acts as a regulator of sprouting angiogenesis, probably via collagen IV scaffolding (PubMed:21835952). Acts as a regulator of chondrocyte differentiation, probably by regulating expression of factors that control chondrocyte differentiation.

Note: This product is for in vitro research use only