

Product datasheet for **TA336520**

LOX Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Immunoblotting, WB
Recommended Dilution:	Western Blot: 1:500-1:2000, Immunohistochemistry: 0.5-1.0 ug/ml, Immunohistochemistry-Paraffin: 1:100-1:250, Immunocytochemistry/ Immunofluorescence: 5 ug/ml, Immunoblotting
Reactivity:	Human, Mouse, Rat, Porcine, Primate
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to an internal region of mouse LOX propeptide (residues 78-115). [UniProt# P28301]
Formulation:	PBS, 0.02% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	lysyl oxidase
Database Link:	NP_002308 Entrez Gene 16948 Mouse Entrez Gene 24914 Rat Entrez Gene 4015 Human P28300



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Background:

Lysyl oxidase (LOX) is a critical enzyme in extracellular matrix biosynthesis as well as in the maintenance of normal bone phenotype. It is synthesized/secreted as a 50-kD proenzyme 'pro-LOX' which is then processed to 30-kD mature enzyme 'LOX' and 18-kD lysyl oxidase propeptide 'LOX-PP' by extracellular procollagen C-proteinases (BMP1, TII1, and TII2). LOX-PP has been proposed to implicate in the maintenance of inactive state of LOX within the secretory pathway and to act as intramolecular chaperones which facilitate the accurate protein folding/targeting to correct destinations. LOX-PP involves tumor suppression by inhibiting RAS-dependent cellular transformation and its expression has also been associated with inhibition of anchorage-independent progression as well as migration and growth suppression xenografts in Her-2/neu-driven breast cancer. LOX-PP also inhibits PI3K/AKT and ERK1/2 MAP kinase pathways, as well as the levels of downstream NF- κ B/cyclin D1 signals in certain cancers - breast, pancreatic, lung, prostate and oral cancers. LOX-PP has also been shown to inhibit DNA synthesis in rat's VSMCs cultures, osteoblast proliferation and FGF-2 signaling.

Synonyms:

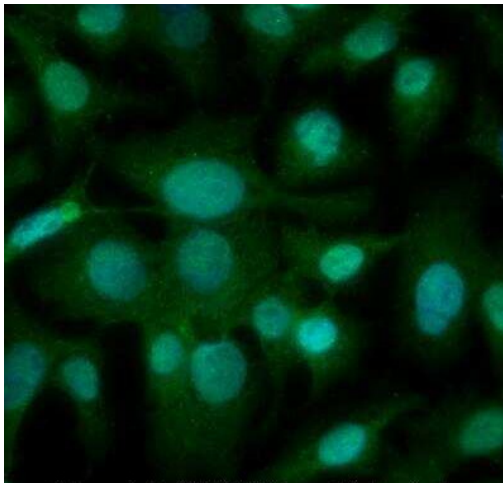
MGC105112

Note:

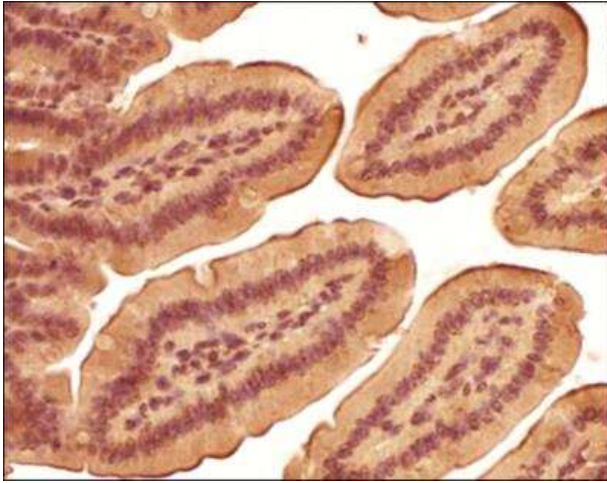
This LOX propeptide antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin and Western Blot where a band is seen at ~18 kDa. The strong band at 50 kDa and smear of bands that run between 46 kDa and 50 kDa are glycosylated and non-glycosylated forms of pro-lysyl oxidase. Bands between 28-36 kDa are glycosylated propeptide. The variation in MW depends on the extent of glycosylation.

Protein Families:

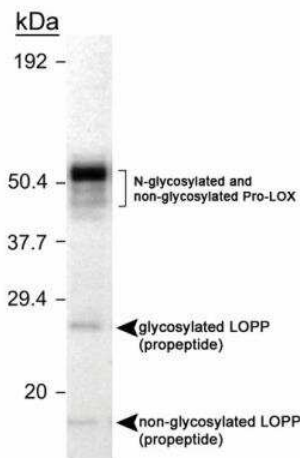
Druggable Genome, Secreted Protein

Product images:

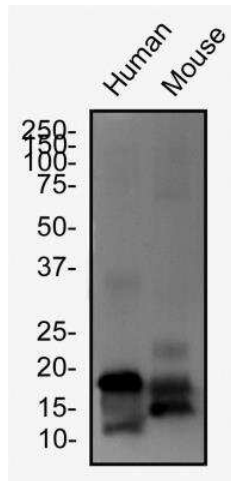
Immunocytochemistry/Immunofluorescence: LOX propeptide Antibody TA336520 - HepG2 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton-X100. The cells were incubated with anti-LOX propeptide at 5 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: LOX propeptide Antibody TA336520 - IHC analysis of a formalin fixed paraffin embedded tissue section of mouse intestine using 1:200 dilution of rabbit anti- LOX propeptide (LOX-PP) antibody. The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This LOX-PP antibody generated a strong cytoplasmic staining in the epithelial and other cells with a majority of the signal localizing to luminal end of columnar epithelial cells. There appears to be some nuclear positivity also which might be a nuclear variant of LOX-PP.

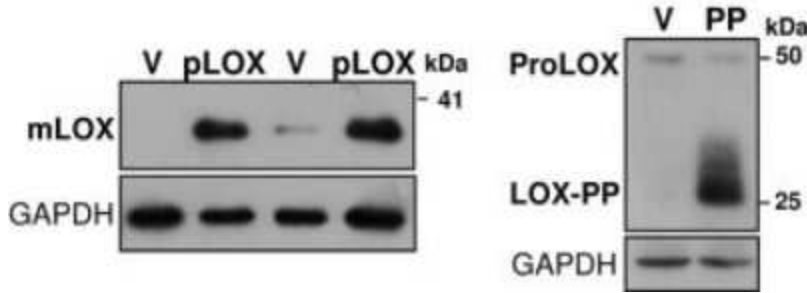


Western Blot: LOX propeptide Antibody TA336520 - Detection of LOPP in MC3T3-E1 cell lysate.



Western Blot: LOX propeptide Antibody TA336520 - Total protein from human and mouse brain was separated on a 12% gel by SDS-PAGE, transferred to 0.2 um PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 0.5 ug/ml anti-LOX propeptide in block buffer and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.

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Western Blot: LOX propeptide Antibody - BSA Free TA336520 - LOX propeptide Antibody TA336520 - Human VSMC were transduced with a lentiviral vector encoding for full-length LOX (pLOX; black bars), LOX-PP (pLOX-PP; grey bars) or with the corresponding empty vector (pLVX; V; white bars). (a) Immunoblots corresponding to mature LOX (mLOX; left panel) & LOX-PP (right panel). The position of the pro-enzyme (ProLOX, right panel), detected with the antibody against the propeptide. GAPDH was analyzed as a loading control. Displayed blots are not cropped from different gels or different parts of the same gel. Representative immunoblots from 3 independent experiments were shown. Image collected & cropped by Cite Ab from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30185869/>) licensed under a CC-BY license.