

Product datasheet for **TA337077**

LOX Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, IP, WB
Recommended Dilution:	Immunohistochemistry, Knockout Validated, Immunocytochemistry/ Immunofluorescence: 1:10-1:500, Immunoprecipitation: 1:10-1:500, Western Blot: 1:100-1:2000, Immunohistochemistry-Paraffin: 1:10-1:500, Immunohistochemistry-Frozen
Reactivity:	Human, Mouse, Rat, Bovine, Primate
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Within the range of amino acids 305-338 of human LOX protein were used as the immunogen.
Formulation:	Crude whole Rabbit sera with 50% Glycerol, 0.025% Sodium Azide
Concentration:	lot specific
Purification:	Whole antisera
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:

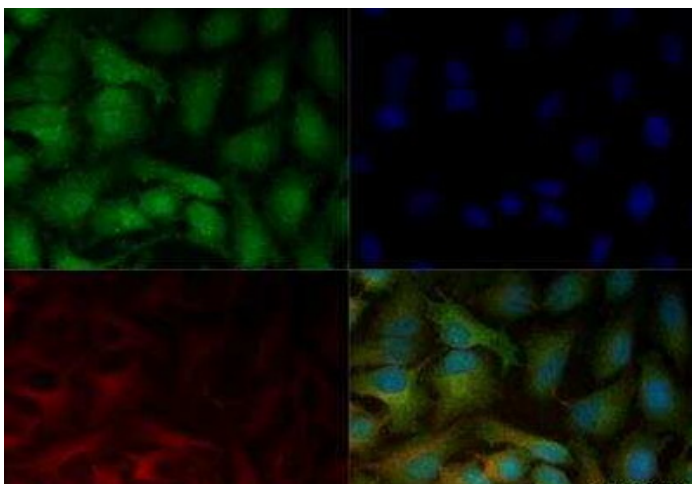
LOX (lysyl oxidase) is a copper-dependent amine oxidase enzyme responsible for post-translational oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin. LOX is synthesized as an inactive 50 kD proenzyme that is N-glycosylated in ER/Golgi complex and then secreted into extracellular environment, where it is processed by pro-collagen C-proteinases (mammalian Tolloids and BMP-1) into an active enzyme (28-32 kD) and an 18 kD propeptide (LOX-PP) which can be N-glycosylated intracellularly into a ~35 kD form. LOX activity is critical in maintaining the tensile as well as elastic features of the connective tissues of skeletal, pulmonary and cardiovascular systems. LOX deficiency leads to intra-gestational lethality in LOX^{-/-} mice wherein the pups exhibits aortic aneurysms/tortuosity/rupture. LOX expression is highly regulated during normal development; and, its aberrant expression or activity has been documented in a range of diseases predominantly associated with the ECM such as Cutis laxa or OHS (occipital horn syndrome), Menkes' syndrome, myocardial ischaemia/heart failure, atherosclerosis, scleroderma, liver cirrhosis, Pseudoexfoliation syndrome and glaucoma, Alzheimer's/non-Alzheimer's dementia, Wilson's disease, primary biliary cirrhosis as well as in many type of cancers, wherein LOX implicates in promoting tumor cell invasion and metastasis.

Synonyms:

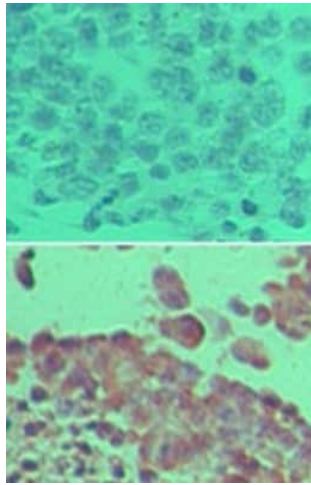
MGC105112

Protein Families:

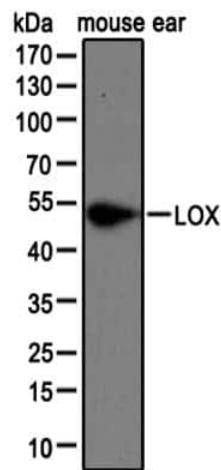
Druggable Genome, Secreted Protein

Product images:

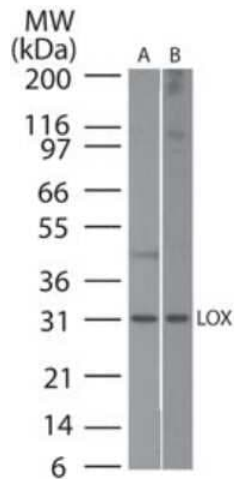
Immunocytochemistry/Immunofluorescence: LOX Antibody TA337077 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-LOX (TA337077) at a 1:200 dilution overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: LOX Antibody TA337077 - Analysis of LOX in formalin-fixed, paraffin-embedded mouse skin using an isotype control (top) and TA337077 (bottom) at 1:100.



Western Blot: LOX Antibody TA337077 - Analysis of mouse ear lysate when LOX antibody (TA337077) was used at 1:1000. The band shown is the expected inactive 50 kD proenzyme.



Western Blot: LOX Antibody TA337077 - Analysis of LOX in A) human skin and B) mouse ear skin lysate using TA337077 at 1:500. Goat anti-rabbit IgG HRP secondary antibody and PicoTect ECL substrate solution were used for this test.