Product Datasheet

LOX Antibody
NB100-2527SS

Unit Size: 0.025 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Reviews: 3 Publications: 10

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NB100-2527SS

LOX Antibody

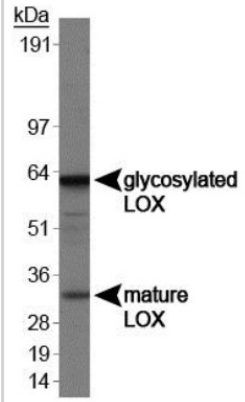
Product Information	
Unit Size	0.025 ml
Concentration	1 mg/ml
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Purity	Immunogen affinity purified
Buffer	Tris-glycine, 150 mM NaCl

Product Description	
Host	Rabbit
Gene ID	4015
Gene Symbol	LOX
Species	Human, Mouse
Species Reactivity	Human and mouse. Predicted to react with rat and pig based on 100% sequence homology. Immunogen sequence has 92% homology to cow and chicken and 85% homology to Xenopus.
Immunogen	A synthetic peptide made to an internal region of the human LOX protein (within residues 200-300). [Swiss-Prot P28300].

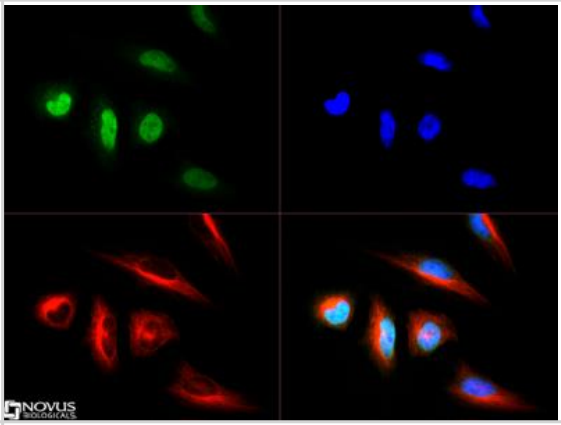
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:100, Immunohistochemistry 1:100-1:250, Immunohistochemistry-Paraffin 1:100-1:250, Simple Western 1:25, Western Blot 0.5-4ug/ml
Application Notes	This LOX antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry-paraffin embedded sections, and Western blot. In Western blot bands are observed ~58 kDa representing glycosylated Lox and ~32 kDa representing the mature, secreted form of Lox. In ICC/IF nuclear staining was observed in HeLa cells, which is expected for the mature form of LOX according to published literature (PMID 17287363 and 10996848). In Simple Western only 10-15 uL of the recommended dilution is used per data point.

Images

Western Blot: LOX Antibody [NB100-2527] - Analysis of LOX in human kidney using NB100-2527.



Immunocytochemistry/Immunofluorescence: LOX Antibody [NB100-2527] - LOX antibody was tested in HeLa cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Immunohistochemistry-Paraffin: LOX Antibody [NB100-2527] - analysis of LOX in fibrotic mice lung tissue using anti-LOX antibody. The primary antibody was used at a dilution of 1:100 and incubated for overnight at 4C. Image from verified customer review.

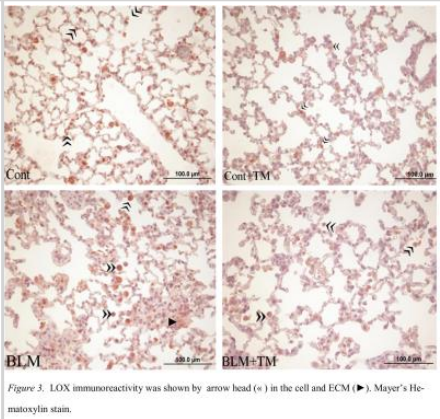
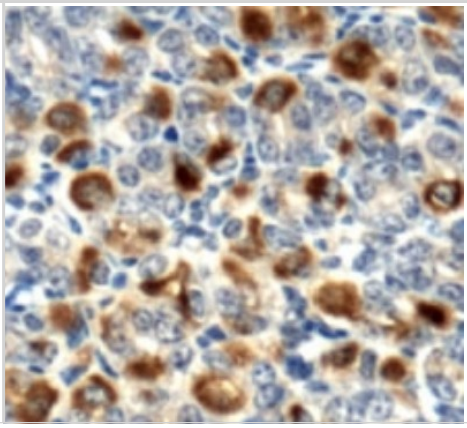
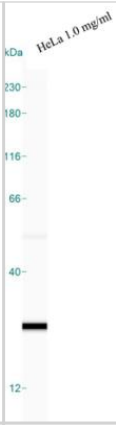
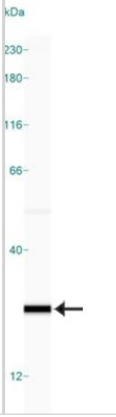


Figure 3. LOX immunoreactivity was shown by arrow head («) in the cell and ECM (►). Mayer's Hematoxylin stain.

Immunohistochemistry: LOX Antibody [NB100-2527] - Staining of LOX in mouse stomach.



Simple Western: LOX Antibody [NB100-2527] - Simple Western lane view shows a specific band detected for LOX in HeLa lysate. This experiment was performed under reducing conditions using the Wes or Sally Sue separation system 12-230kDa (or 66-440kDa).	
Simple Western: LOX Antibody [NB100-2527] - Simple Western lane view shows a specific band for LOX in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system.	

Publications

Ovet H, Oztay F. The Copper Chelator Tetrathiomolybdate Regressed Bleomycin-Induced Pulmonary Fibrosis in Mice, by Reducing Lysyl Oxidase Expressions. Biol Trace Elem Res. 2014 Oct 28 [PMID: 25349139] (WB, IHC-P, Mouse)

Shen CJ, Sharma A, Vuong DV et al. Ionizing radiation induces tumor cell lysyl oxidase secretion. BMC Cancer 2014 Jul 22 [PMID: 25052686] (WB, IHC-P, Human)

Details:
LOX antibody used for WB in conditioned medium from multiple human tumor cell lines in response to irradiation/hypoxia and treatment with microtubule stabilizing agent Patupilone (Epothilone B, EPO906) and in IHC-P on A549-derived tumor xenografts treated with irradiation. WB images shows the detection of LOX zymogen (50 kD) and active form (32 kD) - Figures 1, 3, 4.

Shen J, Xia W, Khotskaya YB et al. EGFR modulates microRNA maturation in response to hypoxia through phosphorylation of AGO2. Nature. 2013 May 16 [PMID: 23636329] (WB, Human)

Chou J, Lin JH, Brenot A et al. GATA3 suppresses metastasis and modulates the tumour microenvironment by regulating microRNA-29b expression. Nat Cell Biol 2012 Dec 23 [PMID: 23354167] (WB, Mouse)

Teppo S, Sundquist E, Vered M et al. The hypoxic tumor microenvironment regulates invasion of aggressive oral carcinoma cells Exp Cell Res 2012 Dec 19 [PMID: 23262025] (WB, Human)

Mizuno S, Yasuo M, Bogaard HJ et al. Inhibition of histone deacetylase causes emphysema Am J Physiol Lung Cell Mol Physiol 2011 Mar [PMID: 21224215] (WB, Rat)

Zibadi S, Vazquez R, Moore D et al. Myocardial lysyl oxidase regulation of cardiac remodeling in a murine model of diet-induced metabolic syndrome. Am J Physiol Heart Circ Physiol;297(3):H976-982. 2009 [PMID: 19592613]

Ovchinnikova O, Robertson A-KL, Wagsater D et al. T-Cell Activation Leads to Reduced Collagen Maturation in Atherosclerotic Plaques of Apoe-/- Mice. Am J Pathol;174(2):693-700. 2009 [PMID: 19131590]

Schlotzer-Schrehardt U et al. Genotype-Correlated Expression of Lysyl Oxidase-Like 1 in Ocular Tissues of Patients with Pseudoexfoliation Syndrome/Glaucoma Normal Patients. Am J Pathol;173(6):1724-1735. 2008 [PMID: 18974306]

Contente S, Yeh TJ, Friedman RM. Tumor suppressive effect of lysyl oxidase proenzyme. Biochim Biophys Acta;1793(7):1272-8. 2009 Jul. [PMID: 19410608]

Procedures

Western Blot Protocol

Specific for LOX Antibody (NB100-2527)

1. Perform SDS-PAGE (4-12%, Bis-Tris) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% non-fat dry milk + 1% BSA in TBS, overnight at 4C.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-LOX primary antibody (NB 100-2527) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions (Pierce's ECL).

**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Immunohistochemistry-paraffin embedded sections

(NB100-2527)

Antigen unmasking

1. Bring slides to a boil in 10 mM sodium citrate buffer pH 6.0 then maintain at a sub-boiling temperature for 10 minutes.
2. Cool slides on bench top for 30 minutes.

Staining

1. Wash sections in dH2O three times for 5 minutes each.
2. Wash section in wash buffer (1X PBS/0.1% Tween-20 (1X PBST)) for 5 minutes.
3. Block each section with 100-400ul blocking solution (1X PBST, 5% goat serum) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul primary antibody diluted in 1X PBST, 5% goat serum to each section.
5. Incubate overnight at 4C.
6. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
7. Add 100-400 ul biotinylated secondary antibody, diluted in 1X PBST, 5% goat serum.
8. Incubate 30 minutes at room temperature.
9. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
10. Add 100-400 ul Streptavidin HRP reagent to each section and incubate for 30 minutes at room temperature.
11. Wash sections three times in wash buffer for 5 minutes each.
12. Add 100-400 ul DAB substrate to each section and monitor staining closely.
13. As soon as the sections develop, immerse slides in dH2O.
14. Counterstain sections in hematoxylin.
15. Wash sections in dH2O two times for 5 minutes each.
16. Dehydrate sections.
17. Mount coverslips.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.