Product datasheet

Anti-LOX antibody ab31238

Overview

Product name: Anti-LOX antibody
Description: Rabbit polyclonal to LOX
Host species: Rabbit
Tested applications: Suitable for: WB, Flow Cyt, IHC-P, IHC-FoFr
Species reactivity: Reacts with: Mouse, Rat, Human
Predicted to work with: Chicken, Dog
Immunogen: Synthetic peptide corresponding to Human LOX aa 400 to the C-terminus (C terminal).
(Peptide available as ab28612)
Positive control: This antibody gave a positive signal in the following whole cell lysates: MDA-MB-361, MDA-MB-231, MCF-7, and MEF1 whole cell lysates.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.02% Sodium azide
Constituent: PBS
Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab31238 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function

Responsible for the post-translational oxidative deamination of peptidyl lysine residues in precursors to fibrous collagen and elastin. In addition to cross-linking of extracellular matrix proteins, may have a direct role in tumor suppression.

Tissue specificity

Heart, placenta, skeletal muscle, kidney, lung and pancreas.

Involvement in disease

Defects in LOX may be a cause of cutis laxa autosomal recessive type 1 (ARCL1) [MIM:219100].

Sequence similarities

Belongs to the lysyl oxidase family.

Post-translational modifications

The lysine tyrosylquinone cross-link (LTQ) is generated by condensation of the epsilon-amino group of a lysine with a topaquinone produced by oxidation of tyrosine.

Cellular localization

Secreted > extracellular space.

Images

| Lanes 1-4 | Anti-LOX antibody (ab31238) at 1 µg/ml (Milk blocking) |
| Lanes 5-8 | Anti-LOX antibody (ab31238) at 1 µg/ml (BSA blocking) |
| Lanes 1 & 5 | MDA-MB-361 (Human breast adenocarcinoma cell line) Whole Cell Lysate |
| Lanes 2 & 6 | MDA-MB-231 (Human breast adenocarcinoma cell line) Whole Cell Lysate |
| Lanes 3 & 7 | MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate |
| Lanes 4 & 8 | MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate |

Lysates/proteins at 10 µg per lane.

Secondary
**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) preabsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 32 kDa

**Observed band size**: 36 kDa

*why is the actual band size different from the predicted?*

**Additional bands at**: 15 kDa, 70 kDa. We are unsure as to the identity of these extra bands.

**Exposure time**: 20 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk (lanes 1-4) or 2% Bovine Serum Albumin (lanes 5-8) before being incubated with ab31238 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)**

*Anti-LOX antibody (ab31238)*

This image is courtesy of an anonymous Abreview.

ab31238 staining LOX in human saphenous vein tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde, permeabilized with Tween 20 and blocked with 15% serum for 30 minutes at 20°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/100 in 10% serum in TBS + 0.05% Tween) for 14 hours at 4°C. An Alexa Fluor® 546-conjugated goat anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.
Anti-LOX antibody (ab31238) at 1 µg/ml + MDA-MB-361 whole cell lysate at 20 µg

**Secondary**
Goat polyclonal to Rabbit IgG (Alexa Fluor® 680) at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size:** 32 kDa

**Observed band size:** 36 kDa why is the actual band size different from the predicted?

ab31238 staining LOX in adult rat cardiac fibroblast cells by Flow Cytometry. Cells were fixed with paraformaldehyde and permeabilized with 0.3% Triton X-100. The sample was incubated with the primary antibody (1µg/cells in PBS + BSA) for 45 minutes at 4°C. A FITC-conjugated goat anti-rabbit IgG (1/160) was used as the secondary antibody.

Gating Strategy: 10000 cells.

ab31238 staining LOX in mouse 15.5dpc tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% serum for 2 hours at room temperature; antigen retrieval was by heat mediation in Tris pH 9. Samples were incubated with primary antibody (1/100 in 1% BSA + 1% FBS in TBS) for 16 hours. An undiluted HRP-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.
All lanes: Anti-LOX antibody (ab31238) at 1 µg/ml

Lane 1: MDA-MB-361 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 2: MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 3: NIH 3T3 (Mouse) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) preadsorbed at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 32 kDa
Additional bands at: 15 kDa, 36 kDa (possible mature (processed) protein), 47 kDa (possible immature (unprocessed)), 52 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab31238 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution ab133406.
Immunohistochemical analysis of murine embryonic spinal tissue, staining LOX with ab31238.

Tissue was permeabilized with 0.025% Triton-X and blocked for nonspecific binding using blocking solution. Sections were incubated overnight with primary antibody (1/100) and staining was detected using DAB.

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