

Product Information

Monoclonal anti-LOX antibody produced in mouse
clone LOX-A11, hybridoma cell culture supernatant

Product Number **SAB4100014**

Product Description

Monoclonal Anti-LOX (mouse IgG1 isotype) is derived from the hybridoma LOX-A11 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a human LOX recombinant protein (GenelD: 4015). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is a cell culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-LOX recognizes human LOX. The product may be used in several immunochemical techniques including immunoblotting (~56 kDa), flow cytometry and immunofluorescence.

Lysyl oxidase (LOX), also known as protein-lysine 6-oxidase, belongs to the LOX family of proteins. It is a secretory amine oxidase which catalyzes the oxidative deamination of peptidyl lysine in elastin and peptidyl lysine and hydroxylysine in collagen. This activity leads to inter- or intra-molecular crosslinks required for the insolubilization and stabilization of these proteins in the extracellular milieu.¹ LOX is secreted as a proenzyme (proLOX) that is proteolytically processed in the extracellular matrix. This proenzyme gene encodes a ~50 kDa proenzyme (Pro-LOX), however, due to its triple glycosylation, the full length LOX hinders as a 57 kDa band.² Once secreted, it is cleaved to a ~30 kDa mature enzyme (LOX) and an ~18 kDa propeptide (LOX-PP).³ Upregulation of LOX by tumour cells was shown to promote angiogenesis and metastasis.⁴ This pivotal role in cancer progression makes LOX protein an attractive therapeutic target.⁵⁻⁶

Reagent

Supplied as a culture supernatant solution containing 15 mM sodium azide as a preservative. The product contains 10% fetal calf serum.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:50-1:100 is recommended using whole extracts of LNCaP cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration. Use of sensitive film is recommended.

References

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3. Vora, S.R., et al., *Biochemistry*, **49**, 2962-2972 (2010).
4. Osawa, T., et al., *Bri. J. Cancer*, **109**, 2237-2247 (2013).
5. Cox, T.R., et al., *Nature*, **522**, 106-110 (2015).
6. Perryman, L., and Erler, J.T., *Future Oncol.*, **10**, 1709-1717 (2014).

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