Revision 5

Store at -20C

#58135

LOX (D8F2K) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M	Endogenous	54, 56	Rabbit IgG	#P28300	4015

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

LOX (D8F2K) Rabbit mAb recognizes endogenous levels of total LOX protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the human LOX protein.

Background

Protein-lysin 6-oxidase (LOX) is a secreted copper-dependent amine oxidase and a member of the lysyl oxidase family (1). It primarily catalyzes the oxidation of lysine (or hydroxylysine) residues in collagen and elastin to form peptidyl aldehyde derivatives (2). These modifications are required for further cross-linking of target proteins to enhance extracellular matrix (ECM) stiffness. LOX plays critical roles in vascular, lung, and skin development, and tissue damage repair (3-5). Upregulation of LOX is associated with various diseases, including cancer progression and tissue fibrosis. Aberrant LOX activity creates a favorable tumor microenvironment to promote tumor metastasis and distal colonization (6-8).

Background References

1. Xiao, Q. and Ge, G. (2012) *Cancer Microenviron* 5, 261-73.
2. Trackman, P.C. (2016) *Expert Opin Ther Targets* 20, 935-45.
3. Hornstra, I.K. et al. (2003) *J Biol Chem* 278, 14387-93.
4. Mäki, J.M. et al. (2005) *Am J Pathol* 167, 927-36.
5. Szauter, K.M. et al. (2005) *Pathol Biol (Paris)* 53, 448-56.
6. Wang, T.H. et al. (2016) *Int J Mol Sci* 18, 62. doi: 10.3390/ijms18010062.
7. Cox, T.R. et al. (2015) *Nature* 522, 106-110.
8. Reynaud, C. et al. (2017) *Cancer Res* 77, 268-278.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses

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