

LSD2 (E1R6O) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	92	Rabbit IgG	#Q8NB78	221656

Product Usage Information**Application**

Western Blotting

Dilution

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

LSD2 (E1R6O) Rabbit mAb recognizes endogenous levels of total LSD2 protein. This antibody does not cross-react with LSD1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu467 of human LSD2 protein.

Background

Lysine-specific demethylase 2 (LSD2; also known as AOF1) is a nuclear amine oxidase homolog that acts as a histone demethylase and transcription cofactor protein (1,2). LSD2 functions as a co-repressor protein by demethylating mono-methyl and di-methyl histone H3 Lys4, two marks associated with actively transcribed genes (1,2). LSD2-mediated demethylation of histone H3 Lys4 is required for establishing proper DNA methylation imprints during oogenesis (3). In addition, LSD2 appears to be overexpressed in malignant breast cancers, where it contributes to DNA methylation and repression of multiple tumor suppressor genes (4,5). Furthermore, LSD2 also contains E3 ubiquitin ligase activity that targets O-GlcNAc transferase (OGT) for proteosomal degradation (6). A549 lung cancer cell growth is dependent on this E3 ubiquitin ligase activity, suggesting that this function of LSD2 is also important for proper gene regulation (6).

Background References

1. Yang, Z. et al. (2010) *Cell Res* 20, 276-87.
2. Fang, R. et al. (2010) *Mol Cell* 39, 222-33.
3. Ciccone, D.N. et al. (2009) *Nature* 461, 415-8.
4. Huang, Y. et al. (2018) *Aging (Albany NY)* 10, 11-12.
5. Chen, L. et al. (2017) *Oncotarget* 8, 81737-53.
6. Yang, Y. et al. (2015) *Mol Cell* 58, 47-59.

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 BSA, 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 **R:** Rat **Mk:** Monkey

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