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EZH1 Antibody

Catalog # ASC11309

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q92800
Other Accession	AAC50778, 19923202
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	85271
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EZH1 antibody can be used for detection of EZH1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	2145
Other Names	Histone-lysine N-methyltransferase EZH1, 2.1.1.43, ENX-2, Enhancer of zeste homolog 1, EZH1, KIAA0388
Target/Specificity	EZH1; Multiple isoforms of EZH1 are known to exist. EZH1 antibody is predicted to not cross-react with EZH2
Reconstitution & Storage	EZH1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	EZH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EZH1
Synonyms	KIAA0388
Function	Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH1 complex, which methylates 'Lys-27' of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Required for embryonic stem cell derivation and self-renewal, suggesting that it is involved in safeguarding embryonic stem cell identity.

	Compared to EZH2-containing complexes, it is less abundant in embryonic stem cells, has weak methyltransferase activity and plays a less critical role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation.
Cellular Location	Nucleus. Note=Colocalizes with trimethylated 'Lys-27' of histone H3

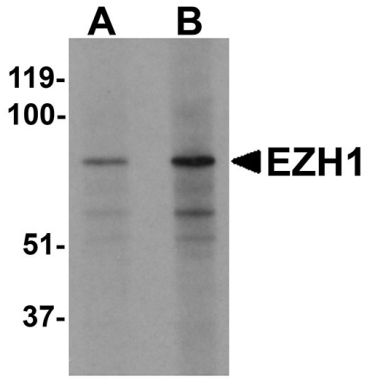
Background

EZH1 Antibody: EZH1 was initially identified as a homolog of the drosophila Enhancer of Zeste through transcription mapping of chromosome 17q21. Both EZH1 and the related protein EZH2 can form complexes with the noncanonical Polycomb repressive complex-2 (PRC2) and maintain repressive chromatin, but the PRC2-EZH1 complex mediates methylation of histone H3. Both EZH1 and EZH2 are thought to function in the maintenance of embryonic stem cell pluripotency and plasticity and recently have been shown to be essential for hair follicle homeostasis and wound repair.

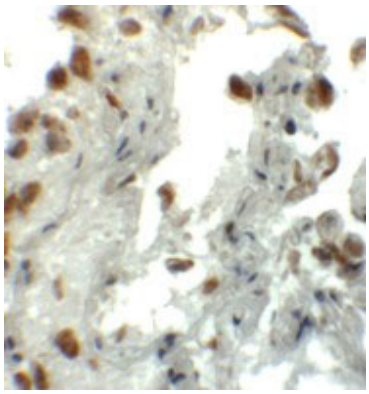
References

Abel KJ, Brody LC, Valdes JM, et al. Characterization of EZH1, a human homolog of Drosophila Enhancer of zeste near BRCA1. Genomics 1996; 37:161-71
Margueron R, Li G, Sarma K, et al. Ezh1 and Ezh2 maintain repressive chromatin through different mechanisms. Mol. Cell 2008; 32:503-18.
Shen X, Liu Y, Hsu YJ, et al. EZH1 mediates methylation on histone H3 lysine 27 and complements EZH2 in maintaining stem cell identity and executing pluripotency. Mol. Cell 2008; 32:491-502
Ezhkova E, Lien WH, Stokes N, et al. EZH1 and EZH2 cogovern histone H3K27 trimethylation and are essential for hair follicle homeostasis and wound repair. Genes Dev. 2011; 25:485-98

Images

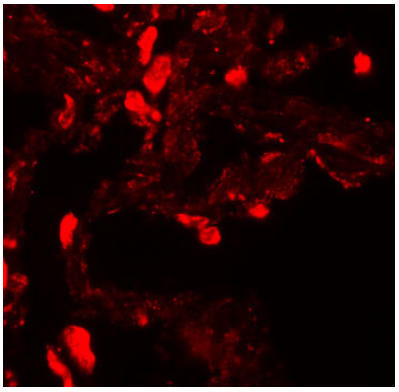


Western blot analysis of EZH1 in mouse lung tissue lysate with EZH1 antibody at (A) 1 and (B) 2 µg/mL



Immunohistochemistry of EZH1 in human lung tissue with EZH1 antibody at 5 µg/mL.

Immunofluorescence of EZH1 in human lung tissue with



EZH1 antibody at 20 µg/mL.

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