10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EZH1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2511c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q92800
Other Accession	A7E2Z2
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2919-2920
Calculated MW	85271
Antigen Region	393-422

Additional Information

Gene ID	2145
Other Names	Histone-lysine N-methyltransferase EZH1, ENX-2, Enhancer of zeste homolog 1, EZH1, KIAA0388
Target/Specificity	This EZH1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 393-422 amino acids from the Central region of human EZH1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EZH1 Antibody (Center) 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

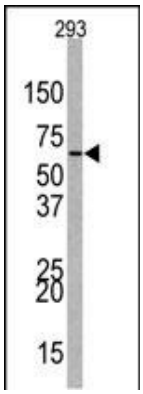
Background

EZH1 encodes a protein of 747 amino acids that displays 55% amino acid identity overall with the Drosophila homolog.1 The strong sequence conservation suggested potential roles for EZH1 in human development as a transcriptional regulator and as a component of protein complexes that preserve heterochromatin stability. EZH1 is expressed as 2 major transcripts in all adult and fetal human tissues evaluated.. Analysis of an EZH1 cDNA revealed an unusual splicing event involving EZH1 and a tandemly linked gene GPR2 and suggested a potential mechanism for modifying the EZH1 protein in the conserved C-terminal domain. The GPR2 gene maps to 17q21.1-q21.3 in the vicinity of the BRCA1 gene.

References

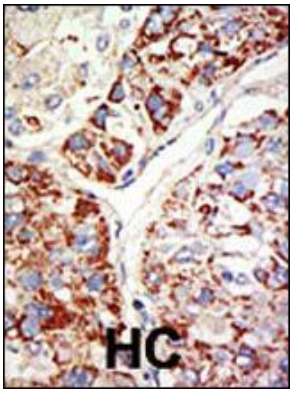
Ogawa, M., et al., Biochim. Biophys. Acta 1395(2):151-158 (1998).
Abel, K.J., et al., Genomics 37(2):161-171 (1996).
Friedman, L.S., et al., Genomics 25(1):256-263 (1995).
Osborne-Lawrence, S., et al., Genomics 25(1):248-255 (1995).
Brody, L.C., et al., Genomics 25(1):238-247 (1995).

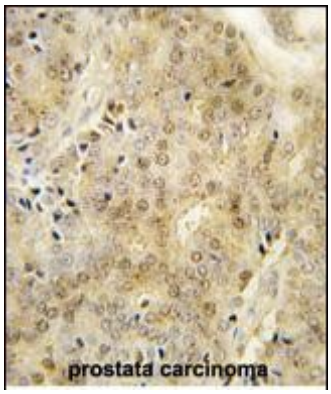
Images



Western blot analysis of anti-EZH1 Antibody (Center) (Cat.#AP2511c) in 293 cell line lysates (35ug/lane). EZH1(arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.





Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with EZH1 Antibody (Center) (Cat.#AP2511c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.