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SUZ12 Antibody

Catalog # ASC11764

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q15022
Other Accession	NP_056170, 197333809
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	83055
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SUZ12 antibody can be used for detection of SUZ12 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	23512
Other Names	Polycomb protein SUZ12, Chromatin precipitated E2F target 9 protein, ChET 9 protein, Joined to JAZF1 protein, Suppressor of zeste 12 protein homolog, SUZ12, CHET9, JJAZ1, KIAA0160
Target/Specificity	SUZ12; SUZ12 antibody is human specific.
Reconstitution & Storage	SUZ12 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	SUZ12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SUZ12
Synonyms	CHET9, JJAZ1, KIAA0160
Function	Polycomb group (PcG) protein. Component of the PRC2 complex, which methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene (PubMed:15225548, PubMed:15231737, PubMed:15385962, PubMed:16618801, PubMed:17344414, PubMed:18285464, PubMed:28229514, PubMed:29499137, PubMed:31959557). The PRC2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems (PubMed:12351676, PubMed:12435631,

PubMed:15099518, PubMed:15225548, PubMed:15385962, PubMed:15684044, PubMed:16431907, PubMed:18086877, PubMed:18285464). Genes repressed by the PRC2 complex include HOXC8, HOXA9, MYT1 and CDKN2A (PubMed:15231737, PubMed:16618801, PubMed:17200670, PubMed:31959557).

Cellular Location Nucleus Note=Localizes to chromatin as part of the PRC2 complex

Tissue Location Overexpressed in breast and colon cancer.

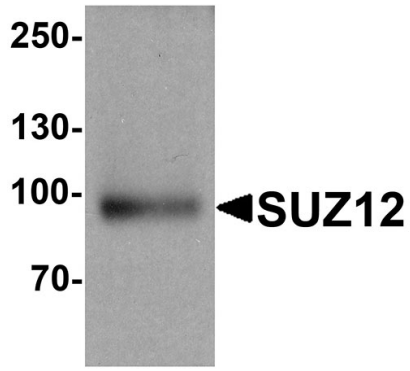
Background

The Polycomb group (PcG) genes contribute to the maintenance of cell identity, cell cycle regulation and oncogenesis (1). SUZ12 (suppressor of zeste 12) is a 90 - 95 kDa member of the polycomb group of transcriptional regulators (2). It is part of a transcription repression complex termed PRC2 (Polycomb repressive complex 2) that methylates histones in the nucleus, resulting in homeotic (pattern-inducing) gene silencing. It contains one C2H2-type zinc finger region and a C-terminal VEFS-box (3,4). SUZ12 is overexpressed in breast and colon cancer. SUZ12 may be a cause of endometrial stromal tumors (5).

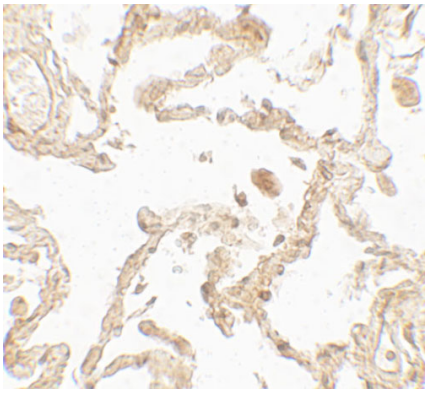
References

Kirmizis A, Bartley SM, Kuzmichev A, et al. Silencing of human polycomb target genes is associated with methylation of Histone H3 Lys 27. Genes Dev. 2004; 18:1592-605.
Pasini D, Bracken AP, Hansen JB, et al. The polycomb group protein Suz12 is required for embryonic stem cell differentiation. Mol. Cell. Biol. 2007; 27:3769-79.
Cao R and Zhang Y. SUZ12 is required for both the Histone methyltransferase activity and the silencing function of the EED-EZH2 complex. Mol. Cell 2004; 15:57-67.
Pasini D, Bracken AP, Jensen MR, et al. SUZ12 is essential for mouse development and for EZH2 Histone methyltransferase activity. EMBO J. 2004; 23:4061-71.

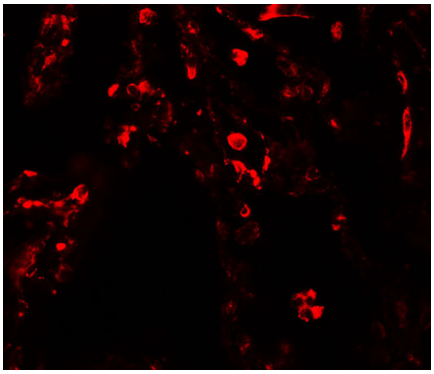
Images



Western blot analysis of SUZ12 in human liver tissue lysate with SUZ12 antibody at 1 µg/ml.



Immunohistochemistry of SUZ12 in human lung tissue with SUZ12 antibody at 5 µg/mL.



Immunofluorescence of SUZ12 in human lung tissue with SUZ12 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.