

SUZ12 Antibody
Catalog # ASC11764**Specification****SUZ12 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	Q15022
Other Accession	NP_056170 , 197333809
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 81 kDa

Application Notes	Observed: 96 kDa KDa SUZ12 antibody can be used for detection of SUZ12 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
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SUZ12 Antibody - Additional Information

Gene ID	23512
Target/Specificity	
SUZ12; SUZ12 antibody is human specific.	

Reconstitution & Storage

SUZ12 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

SUZ12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SUZ12 Antibody - 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](http://www.uniprot.org/citations/15225548) target="_blank">15225548, PubMed: [15231737](http://www.uniprot.org/citations/15231737) target="_blank">15231737, PubMed: [15385962](http://www.uniprot.org/citations/15385962) target="_blank">15385962, PubMed: [16618801](http://www.uniprot.org/citations/16618801) target="_blank">16618801, PubMed: [17344414](http://www.uniprot.org/citations/17344414) target="_blank">17344414, PubMed: [18285464](http://www.uniprot.org/citations/18285464) target="_blank">18285464)

target="_blank">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.

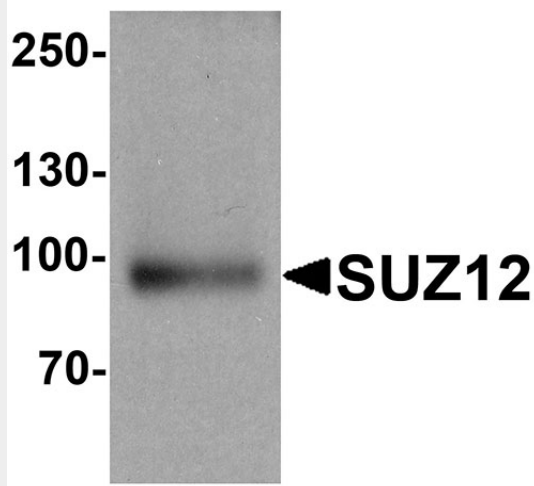
SUZ12 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

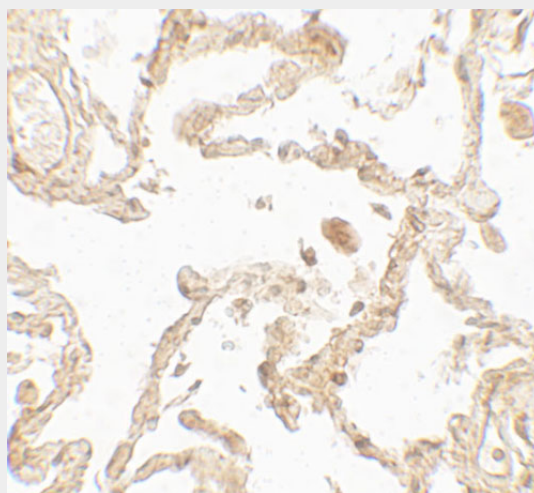
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SUZ12 Antibody - Images

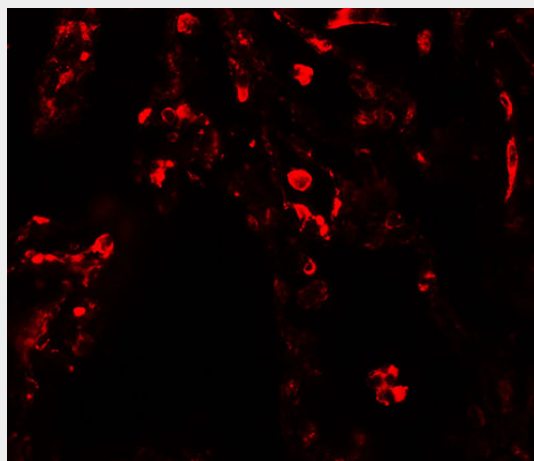




Western blot analysis of SUZ12 in human liver tissue lysate with SUZ12 antibody at 1 μ g/ml.



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



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

SUZ12 Antibody - 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).

SUZ12 Antibody - 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.