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

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** **Observed: 96 kDa KDa**
Application Notes	**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.**

SUZ12 Antibody - Additional Information

Gene ID	**23512**

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.

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, PubMed:15231737, PubMed:15385962, PubMed:16618801, PubMed:17344414, PubMed:<a href="http://www.uniprot.org/citations/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.

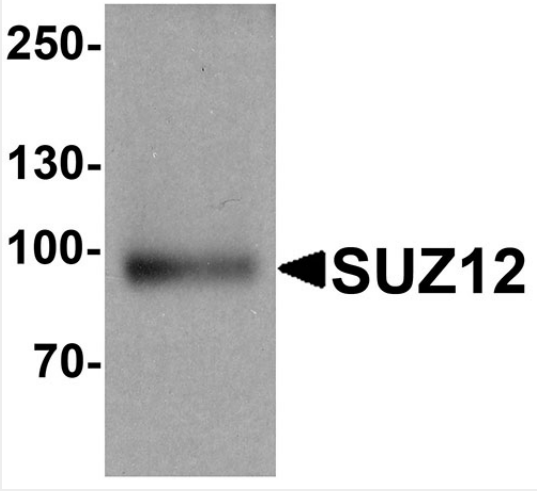
SUZ12 Antibody - Protocols

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

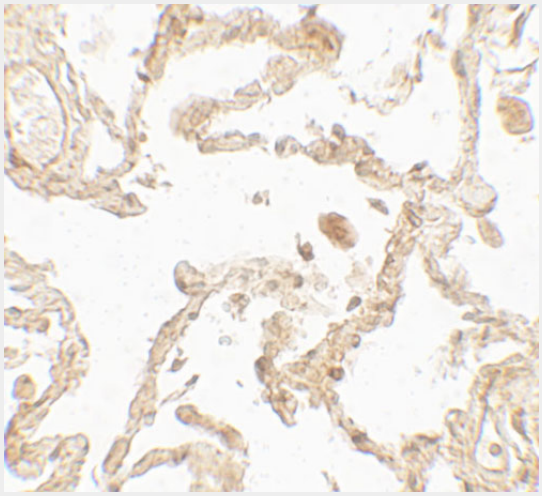
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SUZ12 Antibody - Images

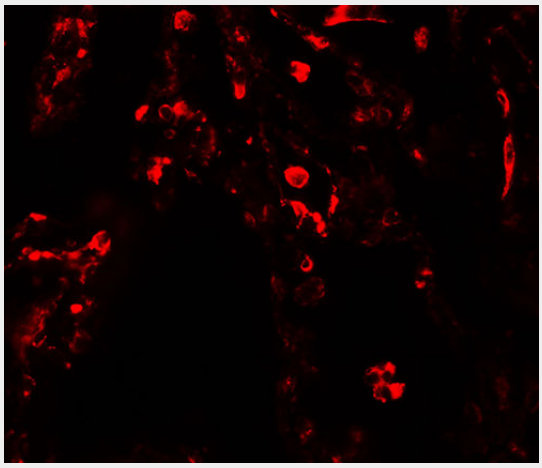
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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.

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.