

Product datasheet

Anti-SUZ12 antibody [SUZ220A] ab126577

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Overview

Product name	Anti-SUZ12 antibody [SUZ220A]
Description	Mouse monoclonal [SUZ220A] to SUZ12
Host species	Mouse
Tested applications	Suitable for: IHC-Fr, Flow Cyt, WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant full length protein (Human)
Positive control	IHC: Human tonsil, testicle and thymus tissues; Mouse testicle tissue; V5-tagged Human SUZ12 expressed in Hek293T ICC/IF: Human tonsil WB: Hek-SUZ12-V5, HeLa, Jeko1, MT-2 and U266 cell lysates

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	SUZ220A
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab126577 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use at an assay dependent concentration.
Flow Cyt		Use 0.1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		1/15. Detects a band of approximately 83 kDa (predicted molecular weight: 83 kDa).
IHC-P		1/30. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Polycomb group (PcG) protein. Component of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXC8, HOXA9, MYT1 and CDKN2A.
Tissue specificity	Overexpressed in breast and colon cancer.
Involvement in disease	Note=A chromosomal aberration involving SUZ12 may be a cause of endometrial stromal tumors. Translocation t(7;17)(p15;q21) with JAZF1. The translocation generates the JAZF1-SUZ12 oncogene consisting of the N-terminus part of JAZF1 and the C-terminus part of SUZ12. It is frequently found in all cases of endometrial stromal tumors, except in endometrial stromal sarcomas, where it is rarer.
Sequence similarities	Belongs to the VEFS (VRN2-EMF2-FIS2-SU(Z)12) family. Contains 1 C2H2-type zinc finger.
Developmental stage	Expressed at low levels in quiescent cells. Expression rises at the G1/S phase transition.
Cellular localization	Nucleus.

Images



Western blot - Anti-SUZ12 antibody [SUZ220A] (ab126577)

All lanes : Anti-SUZ12 antibody [SUZ220A] (ab126577) at 1/100 dilution

Lane 1 : Hek-SUZ12-V5 lysate at 30 µg

Lane 2 : Hek-mTIMP2 lysate at 30 µg

Lane 3 : Hela cell line lysate at 200 µg

Lane 4 : Jeko1 cell line lysate at 200 µg

Lane 5 : Human tonsil lysate at 200 µg

Lane 6 : Human brain lysate at 200 µg

Lane 7 : MT-2 cell line lysate at 200 µg

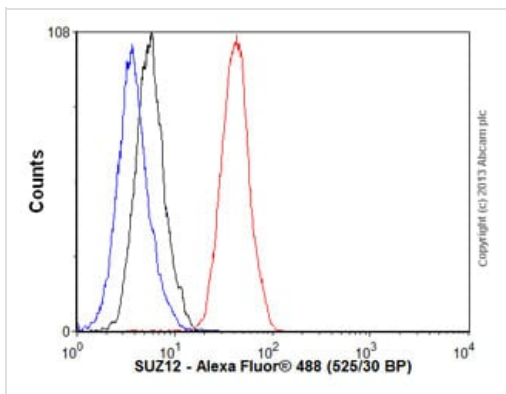
Lane 8 : 3T3 Mouse cell line lysate at 200 µg

Lane 9 : U266 cell line lysate at 200 µg

Predicted band size: 83 kDa

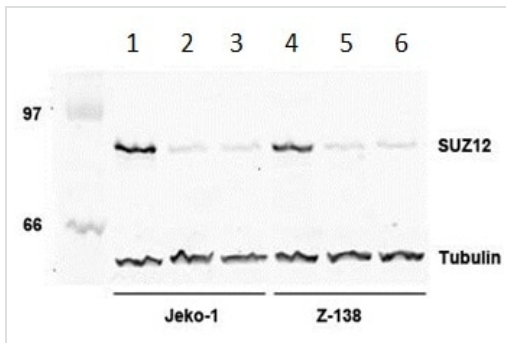
Observed band size: 83 kDa

Note: A purified version of the antibody was used at 1/100 (stock solution at 1mg/ml).



Flow Cytometry - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Overlay histogram showing MCF7 cells stained with ab126577 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab126577, 0.1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H+L) (**ab150113**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-SUZ12 antibody [SUZ220A] (ab126577)

All lanes : Anti-SUZ12 antibody [SUZ220A] (ab126577)

Lanes 1 & 4 : Empty vector

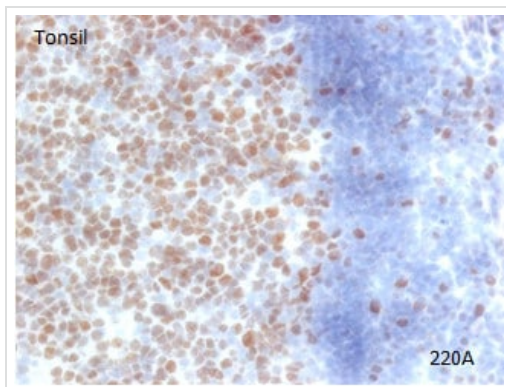
Lanes 2 & 5 : shSUZ12.783

Lanes 3 & 6 : shSUZ12.2076

Predicted band size: 83 kDa

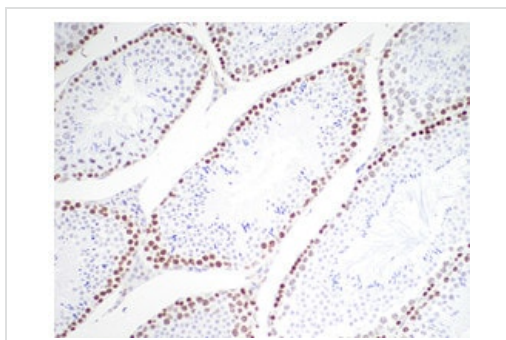
Observed band size: 83 kDa

Effect of SUZ12 RNA interference (siRNA) in Jeko-1 and Z-138 mantle cell lymphoma cell lines treated with two different hairpins against SUZ12 during three days. A control cell line (empty vector) was used as negative control. Expression of SUZ12 was analyzed using ab126577. A decrease of protein expression was observed in siSUZ12 Jeko-1 and Z-138 cell extracts confirming antibody specificity. Band signals were normalized with tubulin as a loading control.



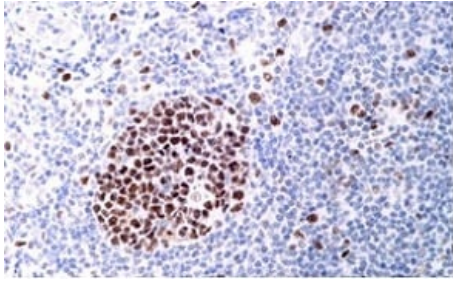
Immunohistochemistry (Frozen sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Purified version of ab126577, at 1/500, staining SUZ12 in frozen Human tonsil tissue by Immunohistochemistry.



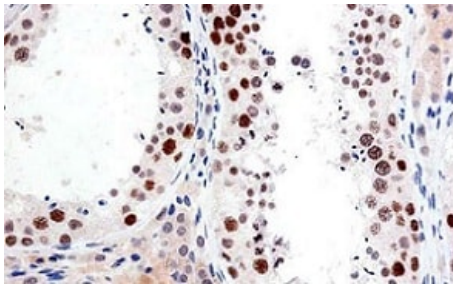
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

ab126577, at a 1/30 dilution, staining SUZ12 in paraffin embedded Mouse testicle tissue by Immunohistochemistry.



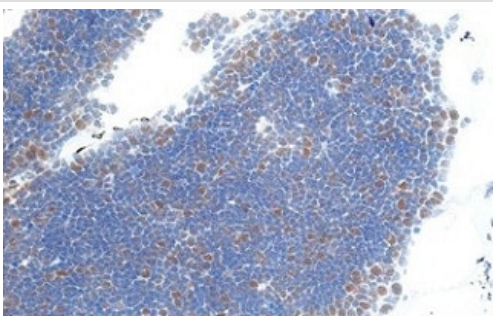
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Purified version of ab126577, at a 1/500 dilution, staining SUZ12 in paraffin embedded Human tonsil tissue by Immunohistochemistry.



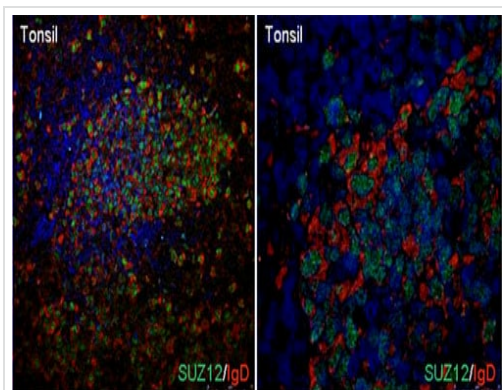
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Purified version of ab126577, at a 1/500 dilution, staining SUZ12 in paraffin embedded Human testicle tissue by Immunohistochemistry.



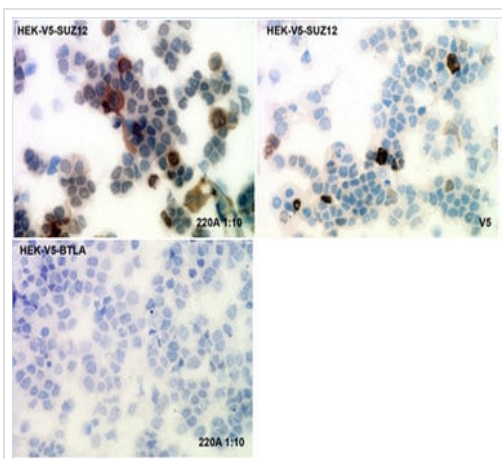
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Purified ab126577 at 1/500 staining SUZ12 in paraffin embedded Human thymus tissue by immunohistochemistry.



Immunocytochemistry/ Immunofluorescence - Anti-SUZ12 antibody [SUZ220A] (ab126577)

Purified version of ab126577, at a 1/100 dilution, staining SUZ12 (green) in Human tonsil by Immunofluorescence. IgD antibody (red) was used at 1/50. After antigen retrieval (Tris-EDTA buffer), the slides were incubated for one hour at room temperature in a humid chamber with primary antibodies. Slides were then washed in PBS 0.5%-Tween20 3 times for 5 minutes each. The slides were incubated for 1 hour with fluorochrome-conjugated antibodies against the different Ig isotypes, diluted in PBS (dilution 1/200) in a humid chamber in the dark. Subsequently, slides were washed in PBS 0.5% Tween20 3 times for 5 minutes each. Following washing, antifading was added.



Immunohistochemistry (Frozen sections) - Anti-SUZ12 antibody [SUZ220A] (ab126577)

To confirm that ab126577 recognized Human SUZ12 protein, Immunohistochemistry on frozen cytopsin preparations of V5-tagged Human SUZ12 expressed in Hek293T was performed. Labeling with the ab126577 confirmed the efficiency of transfection. Cytopsin preparation of V5-tagged Human BTLA protein was used as a negative control.

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