

SUZ12 (D-10): sc-271325

BACKGROUND

The Polycomb group (PcG) genes contribute to the maintenance of cell identity, cell cycle regulation and oncogenesis. The mammalian PcG proteins are regulatory proteins important for Hox gene expression, axial skeleton development and the control of proliferation and survival of hematopoietic cells. By inducing changes in chromatin structure, the PcG proteins are part of a cellular memory system that is responsible for gene activity being inherited to progeny cells. PcG proteins silence gene expression through the formation of multimeric protein complexes with different compositions. Manipulating the expression-levels of various PcG proteins in mammalian cell lines results in cellular transformation, which may be a link between the chromatin-associated PcG proteins and cancer. Polycomb protein SUZ12, also designated ChET 9 protein or joined-to-JAZF1 protein, is a nuclear protein belonging to the VEFs (VRN2-EMF2-FIS2-SUZ12) family. SUZ12 has been detected at the breakpoints of a certain recurrent chromosomal translocation which has been reported in endometrial stromal sarcoma. It is a component of the PRC2 complex, composed of EED, EZH2, SUZ12/JJAZ1, RBBP4 and RBBP7.

CHROMOSOMAL LOCATION

Genetic locus: SUZ12 (human) mapping to 17q11.2; Suz12 (mouse) mapping to 11 B5.

SOURCE

SUZ12 (D-10) is a mouse monoclonal antibody raised against amino acids 440-739 mapping at the C-terminus of SUZ12 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SUZ12 (D-10) is available conjugated to agarose (sc-271325 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271325 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271325 PE), fluorescein (sc-271325 FITC), Alexa Fluor® 488 (sc-271325 AF488), Alexa Fluor® 546 (sc-271325 AF546), Alexa Fluor® 594 (sc-271325 AF594) or Alexa Fluor® 647 (sc-271325 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271325 AF680) or Alexa Fluor® 790 (sc-271325 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SUZ12 (D-10) is recommended for detection of SUZ12 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

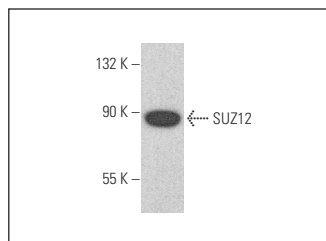
Suitable for use as control antibody for SUZ12 siRNA (h): sc-45597, SUZ12 siRNA (m): sc-45598, SUZ12 shRNA Plasmid (h): sc-45597-SH, SUZ12 shRNA Plasmid (m): sc-45598-SH, SUZ12 shRNA (h) Lentiviral Particles: sc-45597-V and SUZ12 shRNA (m) Lentiviral Particles: sc-45598-V.

Molecular Weight of SUZ12: 95 kDa.

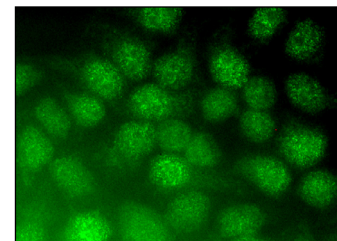
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



SUZ12 (D-10): sc-271325. Western blot analysis of SUZ12 expression in F9 whole cell lysate.



SUZ12 (D-10): sc-271325. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

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- D'Angelo, V., et al. 2015. EZH2 is increased in paediatric T-cell acute lymphoblastic leukemia and is a suitable molecular target in combination treatment approaches. *J. Exp. Clin. Cancer Res.* 34: 83.
- Chen, S., et al. 2016. Hypoxia induces TWIST-activated epithelial-mesenchymal transition and proliferation of pancreatic cancer cells *in vitro* and in nude mice. *Cancer Lett.* 383: 73-84.
- Liefke, R., et al. 2017. EPOP interacts with elongin BC and USP7 to modulate the chromatin landscape. *Mol. Cell* 65: 202.
- Hu, J., et al. 2018. TRPS1 suppresses breast cancer epithelial-mesenchymal transition program as a negative regulator of SUZ12. *Transl. Oncol.* 11: 416-425.
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- Xie, S., et al. 2020. EZH2 inhibitors abrogate upregulation of trimethylation of H3K27 by CDK9 inhibitors and potentiate its activity against diffuse large B-cell lymphoma. *Haematologica* 105: 1021-1031.
- Ameneiro, C., et al. 2020. BMAL1 coordinates energy metabolism and differentiation of pluripotent stem cells. *Life Sci. Alliance* 3: e201900534.
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- Weber, L.M., et al. 2022. The histone acetyltransferase KAT6A is recruited to unmethylated CpG islands via a DNA binding winged helix domain. *Nucleic Acids Res.* E-published.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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