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ASXL1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11132C

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	Q8IXJ9
Other Accession	P59598, NP_056153.2
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24070
Calculated MW	165432
Antigen Region	521-549

Additional Information

Gene ID	171023
Other Names	Putative Polycomb group protein ASXL1, Additional sex combs-like protein 1, ASXL1, KIAA0978
Target/Specificity	This ASXL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 521-549 amino acids from the Central region of human ASXL1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ASXL1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ASXL1
Synonyms	KIAA0978

Function	Probable Polycomb group (PcG) protein involved in transcriptional regulation mediated by ligand-bound nuclear hormone receptors, such as retinoic acid receptors (RARs) and peroxisome proliferator-activated receptor gamma (PPARG) (PubMed:16606617). Acts as a coactivator of RARA and RXRA through association with NCOA1 (PubMed:16606617). Acts as a corepressor for PPARG and suppresses its adipocyte differentiation-inducing activity (By similarity). Non- catalytic component of the PR-DUB complex, a complex that specifically mediates deubiquitination of histone H2A monoubiquitinated at 'Lys-119' (H2AK119ub1) (PubMed:20436459, PubMed:30664650, PubMed:36180891). Acts as a sensor of N(6)-methyladenine methylation on DNA (6mA): recognizes and binds 6mA DNA, leading to its ubiquitination and degradation by TRIP12, thereby inactivating the PR-DUB complex and regulating Polycomb silencing (PubMed:30982744). The PR-DUB complex is an epigenetic regulator of gene expression and acts as a transcriptional coactivator, affecting genes involved in development, cell communication, signaling, cell proliferation and cell viability (PubMed:30664650, PubMed:36180891). ASXL1, ASXL2 and ASXL3 function redundantly in the PR-DUB complex (By similarity) (PubMed:30664650). The ASXL proteins are essential for chromatin recruitment and transcriptional activation of associated genes (By similarity). ASXL1 and ASXL2 are important for BAP1 protein stability (PubMed:30664650). Together with BAP1, negatively regulates epithelial-mesenchymal transition (EMT) of trophoblast stem cells during placental development by regulating genes involved in epithelial cell integrity, cell adhesion and cytoskeletal organization (PubMed:34170818).
Cellular Location	Nucleus.
Tissue Location	Widely expressed at low level. Expressed in heart, brain, skeletal muscle, placenta, pancreas, spleen, prostate, small intestine, colon, peripheral blood, leukocytes, bone marrow and fetal liver. Highly expressed in testes.

Background

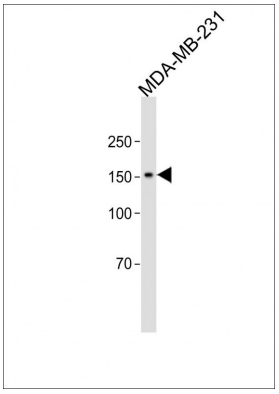
This gene is similar to the Drosophila additional sex combs gene, which encodes a chromatin-binding protein required for normal determination of segment identity in the developing embryo. The protein is a member of the Polycomb group of proteins, which are necessary for the maintenance of stable repression of homeotic and other loci. The protein is thought to disrupt chromatin in localized areas, enhancing transcription of certain genes while repressing the transcription of other genes. The protein encoded by this gene functions as a ligand-dependent co-activator for retinoic acid receptor in cooperation with nuclear receptor coactivator 1. Mutations in this gene are associated with myelodysplastic syndromes and chronic myelomonocytic leukemia. Alternative splicing results in multiple transcript variants.

References

Abdel-Wahab, O., et al. Leukemia 24(9):1656-1657(2010)
Szpurka, H., et al. Leuk. Res. 34(8):969-973(2010)
Sugimoto, Y., et al. Br. J. Haematol. 150(1):83-87(2010)
Boultwood, J., et al. Leukemia 24(6):1139-1145(2010)
Rocquain, J., et al. BMC Cancer 10, 401 (2010) :

Images

All lanes: Anti-ASXL1 Antibody (Center) at 1:2000 dilution + MDA-MB-231 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution.



Observed band size: 165 KDa Blocking/Dilution buffer: 5% NFDM/TBST.