Revision 1

Store at -20C

#52519

ASXL1 (D1B6V) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	250	Rabbit IgG	#Q8IXJ9	171023

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ASXL1 (D1B6V) Rabbit mAb recognizes endogenous levels of total ASXL1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1330 of human ASXL1 protein.

Background

Additional sex combs-like protein 1 (ASXL1) is a polycomb-associated protein that interacts with polycomb repressive complex 2 (PRC2), which contains the histone methyltransferase EZH2 and functions to mono-, di-, and tri-methylate histone H3 on lysine 27. These histone marks are associated with transcriptional repression (1). In addition, ASXL1 interacts with BRCA1-associated protein 1 (BAP1), the catalytic subunit of the polycomb repressive deubiquitinase complex (PR-DUB), which functions to de-ubiquitinate histone H2A at lysine 119 and activate transcription (2). ASXL1 functions as a transcriptional regulator of adipogenesis, acting to repress peroxisome proliferator-activated receptor gamma (PPARG) adipocyte differentiation. ASXL1 also functions as a transcriptional regulator of hematopoiesis acting as an activator of retinoic acid receptor (RAR) mediated transcriptional activation (3,4). ASXL1 is mutated or deleted in 10 to 30 percent of all myeloid malignancies, with loss-of-function mutations associated with poor prognosis in myelodysplastic syndrome (MDS) and acute myeloid leukemia (AML). Hematopoietic-specific deletions of ASXL1 in mice result in progressive, multi-lineage cytopenias and dysplasias, leading to increased number of hematopoietic stem and progenitor cells (5).

Background References

1. Abdel-Wahab, O. et al. (2012) *Cancer Cell* 22, 180-93.
2. Scheuermann, J.C. et al. (2010) *Nature* 465, 243-7.
3. Park, U.H. et al. (2011) *J Biol Chem* 286, 1354-63.
4. Cho, Y.S. et al. (2006) *J Biol Chem* 281, 17588-98.
5. Abdel-Wahab, O. et al. (2013) *J Exp Med* 210, 2641-59.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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Limited Uses

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