

Store at
-20C
#92056**WHSC1L1 (D4N9N) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, FC-FP	H M R Mk	Endogenous	80-90, 180	Rabbit IgG	#Q9BZ95	54904

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:200
1:200
1:400

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.

For a carrier free (BSA and azide free) version of this product see product #33839.

Specificity/Sensitivity

WHSC1L1 (D4N9N) Rabbit mAb recognizes endogenous levels of total WHSC1L1 protein, both long and short isoforms.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro117 of human WHSC1L1 protein.

Background

Wolf-Hirschhorn syndrome candidate 1-like protein 1 (WHSC1L1), also known as histone-lysine N-methyltransferase NSD3, is a SET domain-containing histone methyltransferase protein that methylates histone H3 on lysine 4 (H3K4me) and lysine 27 (H3K27me) (1). Methylation of histone H3 lysine 4 is associated with transcriptional activation, while methylation of histone H3 lysine 27 is associated with transcriptional repression. WHSC1L1 can function as an oncogene or a tumor suppressor protein, depending on cell context, and has been shown to regulate expression of a number of genes associated with cell cycle (2). Amplification and/or increased expression of WHSC1L1 in breast, lung, and liver cancer increases growth and survival, and is associated with poor prognosis (2-5). In addition, the NSD3 gene has been found fused with the nuclear pore complex protein NUP98 gene in acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL), and fused with the NUT gene in NUT midline carcinomas (6-10).

Background References

- Morishita, M. et al. (2014) *BMC Struct Biol* 14, 25.
- Zhou, Z. et al. (2010) *Biochem Biophys Res Commun* 398, 565-70.
- Angrand, P.O. et al. (2001) *Genomics* 74, 79-88.
- Yang, Z.Q. et al. (2010) *Cancer Res* 70, 8487-97.
- Kang, D. et al. (2013) *Genes Chromosomes Cancer* 52, 126-39.
- Rosati, R. et al. (2002) *Blood* 99, 3857-60.
- Taketani, T. et al. (2009) *Cancer Genet Cytogenet* 190, 108-12.
- French, C.A. et al. (2014) *Cancer Discov* 4, 928-41.
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- Kuroda, S. et al. (2015) *Case Rep Pathol* 2015, 572951.

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 **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

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

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