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KMT3C / SMYD2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP53278

Product Information

Primary Accession	Q9NRG4
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	49688

Additional Information

Gene ID	56950
Other Names	Histone methyltransferase SMYD2;HSKM B;HSKM-B;HSKMB;KMT3C;Lysine N-methyltransferase 3C; MGC119305;N lysine methyltransferase SMYD2;N-lysine methyltransferase SMYD2;SET and MYND domain containing 2;SET and MYND domain containing protein 2;SET and MYND domain-containing protein 2;Smyd2;SMYD2_HUMAN;Zinc finger MYND domain containing 14;ZMYND14.
Format	ascites
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	SMYD2
Synonyms	KMT3C
Function	Protein-lysine N-methyltransferase that methylates both histones and non-histone proteins, including p53/TP53 and RB1. Specifically trimethylates histone H3 'Lys-4' (H3K4me3) in vivo. The activity requires interaction with HSP90alpha. Shows even higher methyltransferase activity on p53/TP53. Monomethylates 'Lys-370' of p53/TP53, leading to decreased DNA-binding activity and subsequent transcriptional regulation activity of p53/TP53. Monomethylates RB1 at 'Lys-860'.
Cellular Location	Cytoplasm, cytosol. Nucleus

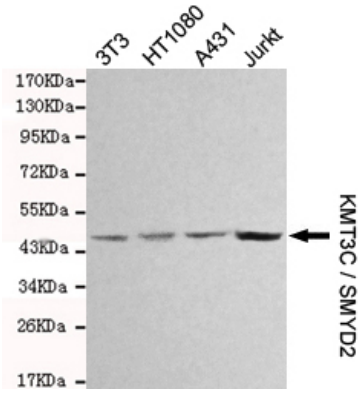
Background

Protein-lysine N-methyltransferase that methylates both histones and non-histone proteins, including p53/TP53 and RB1. Specifically methylates histone H3 'Lys-4' (H3K4me) and dimethylates histone H3 'Lys-36' (H3K36me2). Shows even higher methyltransferase activity on p53/TP53. Monomethylates 'Lys-370' of p53/TP53, leading to decreased DNA-binding activity and subsequent transcriptional regulation activity of p53/TP53. Monomethylates RB1 at 'Lys-860'.

References

Li Y.,et al.Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Gregory S.G.,et al.Nature 441:315-321(2006).
Huang J.,et al.Nature 444:629-632(2006).
Wang C.,et al.Cell Res. 17:374-383(2007).

Images



Western blot detection of KMT3C / SMYD2 in 3T3,HT1080,A431 and Jurkat cell lysates and using KMT3C / SMYD2 mouse mAb (1:1000 diluted). Predicted band size: 50KDa.Observed band size: 50KDa.