

Rabbit Anti-SMYD3/AP Conjugated antibody

SL5974R-AP

Product Name	Anti-SMYD3/AP
Chinese Name	碱性磷酸酶（AP）标记的组蛋白甲基转移酶 SMYD3 抗体
Alias	SET and MYND domain containing 3; SET and MYND domain containing protein 3; SMYD 3; SMYD3 protein; Zinc finger MYND domain containing 1; Zinc finger MYND domain containing protein 1; Zinc finger protein subfamily 3A MYND domain containing 1; ZMYND 1; ZMYND1; ZNFN3A1; SMYD3_HUMAN.
Research Area	Tumour immunology Chromatin and nuclear signals transcriptional regulatory factor Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human(predicted:Mouse,Rat,Cow,Horse,Rabbit,Sheep)
Applications	IHC-P=1:100-500,IHC-F=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	49kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SMYD3
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	background: SMYD3 is a gene that is over-expressed in the majority of colorectal carcinomas and hepatocellular carcinomas. SMYD3 forms a complex with RNA polymerase II through an interaction with the RNA helicase HELZ and

transactivates a set of genes that included oncogenes, homeobox genes and genes associated with cell-cycle regulation. SMYD3 binds to a motif, 5'-CCCTCC-3', present in the promoter region of downstream genes such as Nkx2.8. The SET domain of SMYD3 shows histone H3-lysine 4 (H3-K4)-specific methyltransferase activity, which is enhanced in the presence of the heat-shock protein HSP90A.

Function:

Histone methyltransferase. Specifically methylates 'Lys-4' of histone H3, inducing di- and tri-methylation, but not monomethylation. Plays an important role in transcriptional activation as a member of an RNA polymerase complex. Binds DNA containing 5'-CCCTCC-3' or 5'-GAGGGG-3' sequences.

Subunit:

Interacts with HSPCA. Interacts with HELZ. Interacts with POLR2A; the interaction may be indirect and may be mediated by HELZ.

Subcellular Location:

Cytoplasm. Nucleus. Note=Mainly cytoplasmic when cells are arrested at G0/G1. Accumulates in the nucleus at S phase and G2/M.

Tissue Specificity:

Expressed in skeletal muscles and testis. Overexpressed in a majority of colorectal and hepatocellular carcinomas.

Similarity:

Belongs to the histone-lysine methyltransferase family.
Contains 1 MYND-type zinc finger.
Contains 1 SET domain.

Database links:

[Entrez Gene: 64754](#) Human

[Entrez Gene: 69726](#) Mouse

[Entrez Gene: 498295](#) Rat

[Omim: 608783](#) Human

[SwissProt: Q9H7B4](#) Human

[SwissProt: Q9CWR2](#) Mouse

[Unigene: 567571](#) Human



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[Unigene: 222338](#) Mouse

[Unigene: 28284](#) Rat

Important Note:

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