

## Rabbit Anti-SMYD3/Biotin Conjugated antibody

SL5974R-Bio

<b>Product Name</b>	Anti-SMYD3/Biotin
<b>Chinese Name</b>	生物素标记的组蛋白甲基转移酶 SMYD3 抗体
<b>Alias</b>	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.
<b>Research Area</b>	Tumour immunology Chromatin and nuclear signals transcriptional regulatory factor Epigenetics
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Human(predicted:Mouse,Rat,Cow,Horse,Rabbit,Sheep) IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight</b>	49kDa
<b>Form</b>	Lyophilized or Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human SMYD3
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Storage Buffer</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. 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.
<b>Storage</b>	
<b>Product Detail</b>	<b>background:</b> 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

[Unigene: 222338](#) Mouse

[Unigene: 28284](#) Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.