

## Rabbit SMYD3 Polyclonal Antibody | anti-SMYD3 antibody

SMYD3 Antibody

|                               |                       |                                        |                                                           |
|-------------------------------|-----------------------|----------------------------------------|-----------------------------------------------------------|
| CATALOG #<br><b>AAA323300</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human, Mouse, Rat</b> | APPLICATIONS<br><b>Immunohistochemistry, Western Blot</b> |
|-------------------------------|-----------------------|----------------------------------------|-----------------------------------------------------------|

### PRODUCT SYNONYMS

SMYD3; Polyclonal Antibody; SMYD3 Antibody; bA74P14.1 (novel protein); bA74P14.1; FLJ21080; histone lysine N methyltransferase SMYD3; KMT3E; MGC104324; SET and MYND domain containing 3; SET and MYND domain containing protein 3; SET and MYND domain-containing protein 3; SMYD 3; Smyd3; SMYD3 protein; SMYD3\_HUMAN; Zinc finger MYND domain containing 1; Zinc finger MYND domain containing protein 1; Zinc finger MYND domain-containing protein 1; Zinc finger protein subfamily 3A MYND domain containing 1; Zinc finger protein; subfamily 3A (MYND domain containing); 1; ZMYND 1; ZMYND1; ZNFN3A1; anti-SMYD3 antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                          |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                   |
| Reactivity                                      | Human, Mouse, Rat                                                                                                        |
| Clonality                                       | Polyclonal                                                                                                               |
| Isotype                                         | IgG                                                                                                                      |
| Specificity                                     | SMYD3 antibody detects endogenous levels of SMYD3.                                                                       |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                            |
| Form/Format                                     | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                            |
| Concentration                                   | 1mg/ml (varies by lot)                                                                                                   |
| Sequence Length                                 | 428                                                                                                                      |
| Applicable Applications for anti-SMYD3 antibody | IHC (Immunohistochemistry), WB (Western Blot)                                                                            |
| Immunogen                                       | A synthesized peptide derived from human SMYD3.                                                                          |
| Subcellular Location                            | Cytoplasm. Nucleus. 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.       |
| Predicted Cross Reactivity                      | <b>Pig, Zebrafish, Bovine</b>                                                                                            |
| Similarity                                      | Pig (90%), Zebrafish (80%), Bovine (90%)                                                                                 |
| Conjugation                                     | Unconjugated                                                                                                             |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                                                        |

IMAGES



**IHC (Immunohiostchemistry)**  
AAA323300 at 1/100 staining Human lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



**WB (Western Blot)**  
Western blot analysis of extracts of HepG2 cells, using SMYD3 antibody.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| Related Product Information for anti-SMYD3 antibody | <p>Function: Histone methyltransferase. Specifically methylates 'Lys-4' of histone H3, inducing di- and tri-methylation, but not monomethylation (PubMed:15235609, PubMed:22419068). Also methylates 'Lys-5' of histone H4 (PubMed:22419068). Plays an important role in transcriptional activation as a member of an RNA polymerase complex (PubMed:15235609). Binds DNA containing 5'-CCCTCC-3' or 5'-GAGGGG-3' sequences (PubMed:15235609).</p> <p>Subunit Structure: Interacts with HSPCA (PubMed:15235609). Interacts with HELZ (PubMed:15235609). Interacts with POLR2A; the interaction may be indirect and may be mediated by HELZ (PubMed:15235609). Interacts with HSP90AA1; this interaction enhances SMYD3 histone-lysine N-methyltransferase (PubMed:25738358).</p> <p>Similarity: Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| NCBI GI #                        | 267844824                                          |
| NCBI GeneID                      | 64754                                              |
| NCBI Accession #                 | NP_001161212.1                                     |
| NCBI GenBank Nucleotide #        | NM_001167740.1                                     |
| UniProt Accession #              | Q9H7B4; Q86TL8; Q8N5Z6; Q96AI5; A8K0P0; B1AN38     |
| Molecular Weight                 | Observed: 42-45 kDa<br>Predicted: 50 kDa           |
| NCBI Official Full Name          | histone-lysine N-methyltransferase SMYD3 isoform 1 |
| NCBI Official Synonym Full Names | SET and MYND domain containing 3                   |
| NCBI Official Symbol             | SMYD3                                              |
| NCBI Official Synonym Symbols    | KMT3E; ZMYND1; ZNFN3A1; bA74P14.1                  |
| NCBI Protein Information         | histone-lysine N-methyltransferase SMYD3           |
| UniProt Protein Name             | Histone-lysine N-methyltransferase SMYD3           |
| UniProt Gene Name                | SMYD3                                              |
| UniProt Synonym Gene Names       | ZMYND1; ZNFN3A1                                    |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.