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KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1739

Specification

KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q9H7B4
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 49 kDa , observed , 42 kDa KDa**
Gene Name	**SMYD3**
Aliases	**SMYD3; SET And MYND Domain Containing 3; ZNFN3A1; ZMYND1; KMT3E; Zinc Finger MYND Domain-Containing Protein 1; Histone-Lysine N-Methyltransferase SMYD3 ; SET And MYND Domain-Containing Protein 3; Zinc Finger, MYND Domain Containing 1; Zinc Finger Protein, Subfamily 3A (MYND Domain Containing), 1; EC 2.1.1.354; EC 2.1.1.43; BA74P14.1; EC 2.1.1**
Immunogen	**A synthesized peptide derived from human SMYD3**

KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**64754**

Other Names
Histone-lysine N-methyltransferase SMYD3, 2.1.1.354 {ECO:0000255|PROSITE-ProRule:PRU00907, ECO:0000269|PubMed:15235609, ECO:0000269|PubMed:22419068}, SET and MYND domain-containing protein 3, Zinc finger MYND domain-containing protein 1, SMYD3, ZMYND1, ZNFN3A1

KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody - Protein Information

Name SMYD3

Synonyms ZMYND1, ZNFN3A1

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).

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

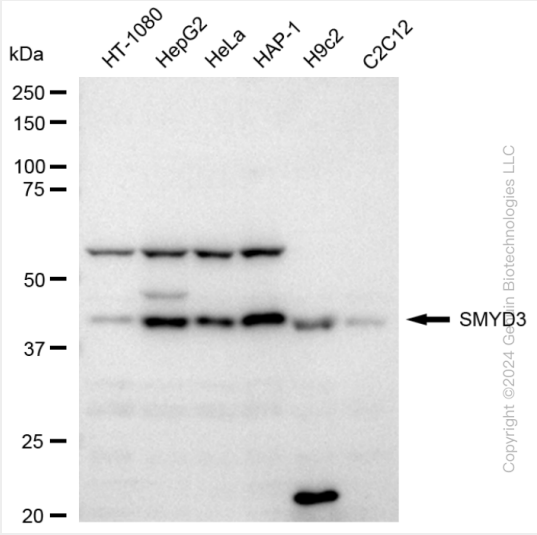
Tissue Location
Expressed in skeletal muscles and testis. Overexpressed in a majority of colorectal and hepatocellular carcinomas.

KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-SMYD3 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-SMYD3 antibody (Cat#AGI1739). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SMYD3 antibody (Cat#AGI1739, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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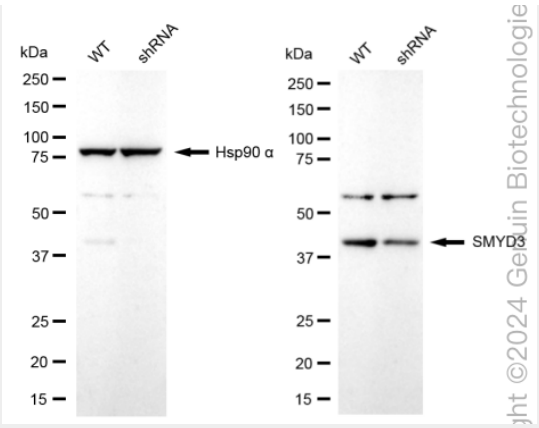
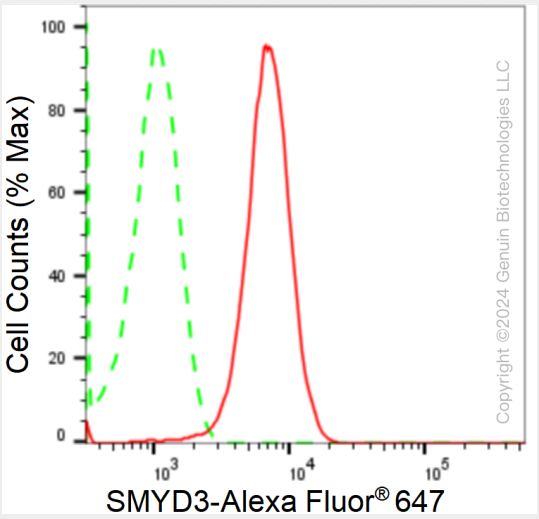
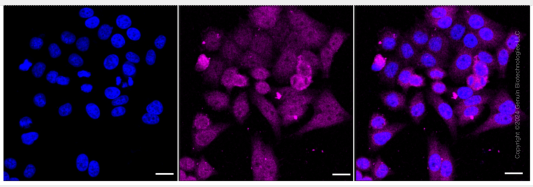


Western blotting analysis using anti-SMYD3 antibody (Cat#AGI1739). SMYD3 expression in wild type (WT) and SMYD3 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-SMYD3 antibody (Cat#AGI1739, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of SMYD3 expression in HepG2 cells using anti-SMYD3 antibody (Cat#AGI1739, 1:2,000). Green, isotype control; red, SMYD3.



Immunocytochemical staining of HepG2 cells with anti-SMYD3 antibody (Cat#AGI1739, 1:1,000). Nuclei were stained blue with DAPI; SMYD3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.