

SMYD3 Monoclonal antibody

Catalog Number: 66330-1-Ig

Basic Information

Catalog Number: 66330-1-Ig	GenBank Accession Number: BC031010	Purification Method: Protein G purification
Size: 150ul , Concentration: 1700 ug/ml by Nanodrop and 1000 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 64754	CloneNo.: 1B5C10
Source: Mouse	UNIPROT ID: Q9H7B4	Recommended Dilutions: WB 1:500-1:2000 IHC 1:50-1:500 IF/ICC 1:200-1:800
Isotype: IgG1	Full Name: SET and MYND domain containing 3	
Immunogen Catalog Number: AG2624	Calculated MW: 428aa, 49 kDa; 369aa, 42 kDa	
	Observed MW: 49 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Species Specificity:
human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : A431 cells, COLO 320 cells, HEK-293 cells, MCF-7 cells

IHC : human pancreas cancer tissue, human liver cancer tissue

IF/ICC : MCF-7 cells,

Background Information

SMYD3, also name as ZMYND1 and ZNFN3A1, belongs to the histone-lysine methyltransferase family. It is a histone methyltransferase that plays an important role in transcriptional regulation in human carcinogenesis. It can specifically methylate histone H3 at lysine 4 and activate the transcription of a set of downstream genes, including several oncogenes (e.g., N-myc, CrkL, Wnt10b, RIZ and hTERT) and genes involved in the control of cell cycle. (PMID: 20957523). It plays an important role in transcriptional activation as a member of an RNA polymerase complex. SMYD3 is frequently overexpressed in different types of cancer cells. It functions as a coactivator of Era and potentiates Era activity in response to ligand. SMYD3 as a new coactivator for ER-mediated transcription, providing a possible link between SMYD3 overexpression and breast cancer. (PMID: 19509295) The common variable number of tandem repeats polymorphism in SMYD3 is a susceptibility factor for some types of human cancer (PMID: 16155568). Mainly cytoplasmic when cells are arrested at G0/G1, accumulates in the nucleus at S phase and G2/M (Uniprot).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

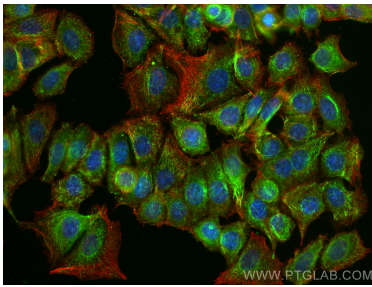
For technical support and original validation data for this product please contact:

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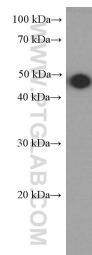
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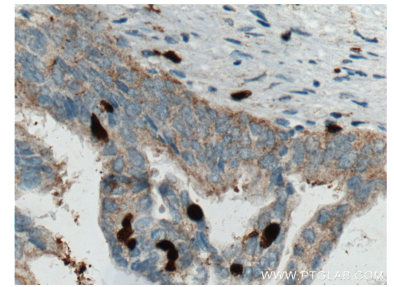
Selected Validation Data



Immunofluorescent analysis of (-20°C Ethanol) fixed MCF-7 cells using SMYD3 antibody (66330-1-Ig, Clone: 1B5C10) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), (CL594-Phalloidin, red).



A431 cells were subjected to SDS PAGE followed by western blot with 66330-1-Ig (SMYD3 Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 66330-1-Ig (SMYD3 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).