For Research Use Only

SMYD3 Monoclonal antibody

Catalog Number:66330-1-Ig

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
66330-1-Ig

Size:
150ul , Concentration: 1700 μg/ml by Nanodrop and 1000 μg/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG2624

GenBank Accession Number:
BC031010

GeneID (NCBI):
64754

Full Name:
SET and MYND domain containing 3

Calculated MW:
428aa,49 kDa; 369aa,42 kDa

Observed MW:
49 kDa

Purification Method:
Protein G purification

CloneNo.:
1B5C10

Recommended Dilutions:
WB 1:500-1:2000
IHC 1:50-1:500
IF 1:200-1:800

Applications

Tested Applications:
IF, IHC, WB, 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 : 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).

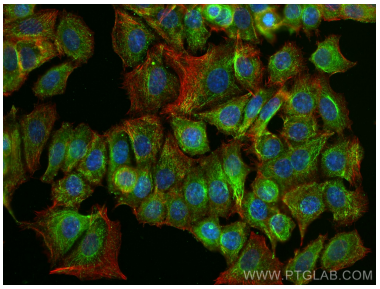
Storage

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

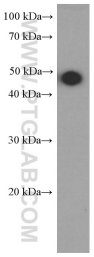
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

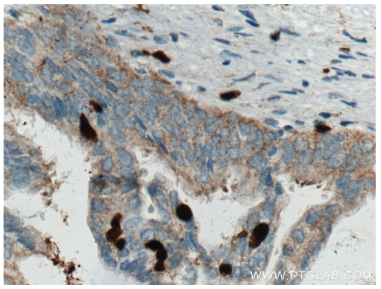
Selected Validation Data



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).