For Research Use Only

SMYD3 Polyclonal antibody

Catalog Number:12011-1-AP Featured Product 7 Publications

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Basic Information

Catalog Number:
12011-1-AP

Size:
150ul , Concentration: 300 ug/ml by Nanodrop and 267 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG2624

GenBank Accession Number:
BC031010

GeneID (NCBI):
64754

UNIPROT ID:
Q9H7B4

Full Name:
SET and MYND domain containing 3

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

Observed MW:
42-45 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:1000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF/ICC 1:50-1:500

Applications

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

Cited Applications:
WB, IHC, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

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 : mouse brain tissue, COLO 320 cells, HeLa cells, HepG2 cells

IP : COLO 320 cells,

IHC : human breast cancer tissue, human colon cancer tissue

IF/ICC : HEK-293 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) . SMYD3 exists some isoforms with MV 49, 43 and 30 kDa.

Notable Publications

Author	Pubmed ID	Journal	Application
Xiaomei Liu	29130966	Cell Physiol Biochem	WB
Fen Long	34094832	Acta Pharm Sin B	WB
Ewud Agborbesong	38892227	Int J Mol Sci	ChIP

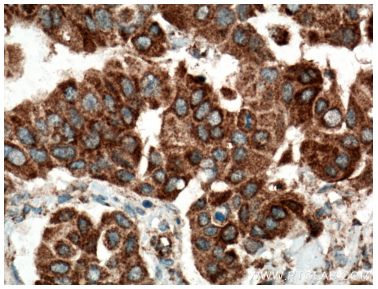
Storage

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

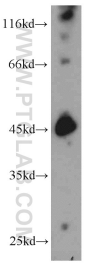
***** 20ul sizes contain 0.1% BSA**

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

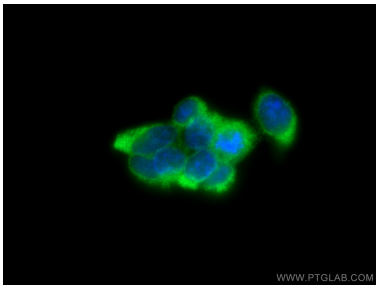
Selected Validation Data



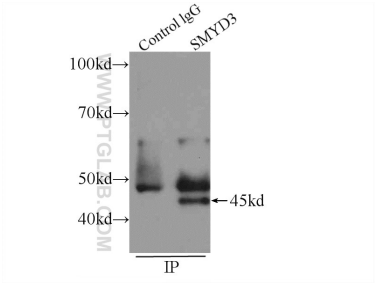
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 12011-1-AP (SMYD3 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



mouse brain tissue were subjected to SDS PAGE followed by western blot with 12011-1-AP (SMYD3 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using SMYD3 antibody (12011-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-SMYD3 (IP:12011-1-AP, 4ug; Detection:12011-1-AP 1:500) with COLO 320 cells lysate 1280ug.