

Product datasheet

Anti-SMYD3 antibody [EPR11106(2)] - N-terminal ab183498

KO VALIDATED Recombinant RabMAB

[2 References](#) [9 Images](#)

Overview

Product name	Anti-SMYD3 antibody [EPR11106(2)] - N-terminal
Description	Rabbit monoclonal [EPR11106(2)] to SMYD3 - N-terminal
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), IHC-P, WB, ICC/IF, IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HAP1, 293, MCF-7 and T47-D cell lysates. IHC-P: Human testis and skeletal muscle tissue. ICC: HeLa cells. Flow Cyt (intra): 293 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR11106(2)

Isotype

IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab183498 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000 - 1/10000. Detects a band of approximately 45 kDa (predicted molecular weight: 49 kDa).
ICC/IF		1/500.
IP		1/40 - 1/60.

Target

Function

Histone methyltransferase. Specifically methylates 'Lys-4' of histone H3, inducing di- and tri-methylation, but not monomethylation. Plays an important role in transcriptional activation as a member of an RNA polymerase complex. Binds DNA containing 5'-CCCTCC-3' or 5'-GAGGGG-3' sequences.

Tissue specificity

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

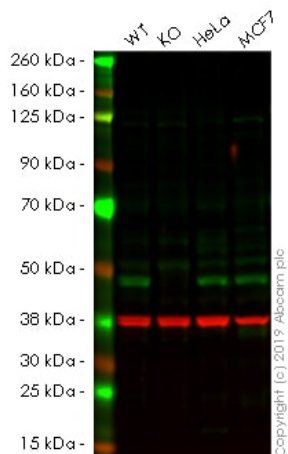
Sequence similarities

Belongs to the histone-lysine methyltransferase family.
Contains 1 MYND-type zinc finger.
Contains 1 SET domain.

Cellular localization

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

Images



Western blot - Anti-SMYD3 antibody [EPR11106(2)]
- N-terminal (ab183498)

All lanes : Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : SMYD3 knockout HAP1 whole cell lysate

Lane 3 : HeLa whole cell lysate

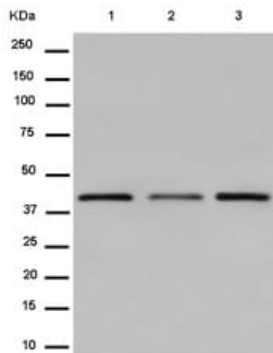
Lane 4 : MCF7 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 49 kDa

Lanes 1 -4: Merged signal (red and green). Green - ab183498 observed at 49 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab183498 was shown to recognize SMYD3 in wild-type HAP1 cells as signal was lost at the expected MW in SMYD3 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and SMYD3 knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab183498 and [ab8245](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SMYD3 antibody [EPR11106(2)]
- N-terminal (ab183498)

All lanes : Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498) at 1/10000 dilution

Lane 1 : HeLa lysate

Lane 2 : 293 lysate

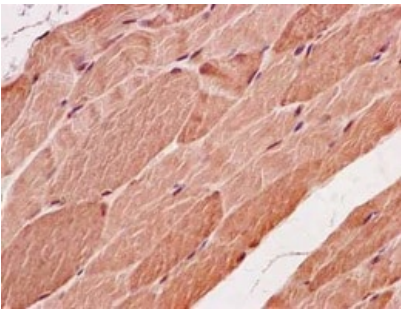
Lane 3 : T47-D lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

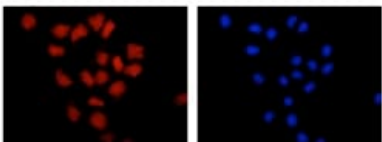
Predicted band size: 49 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

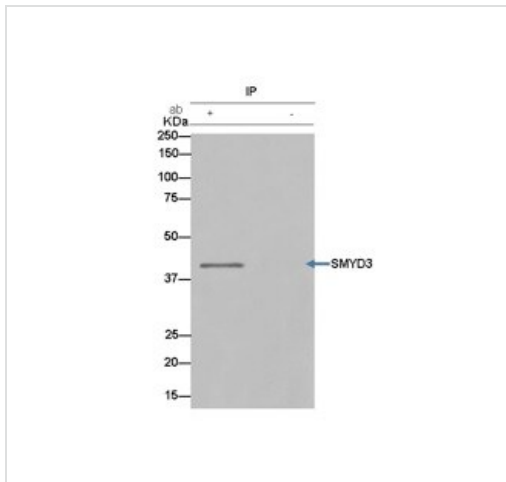
Immunohistochemical analysis of paraffin-embedded Human skeletal muscle labeling SMYD3 at 1/100 dilution and HRP Polymer for Rabbit IgG. Counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



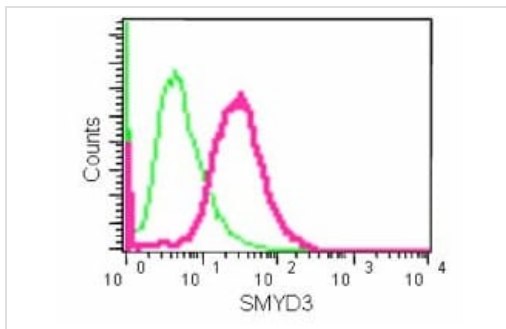
Immunocytochemistry/ Immunofluorescence - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Flow cytometric analysis of HeLa cells fixed in 20 °C acetone labeling SMYD3 at 1/500 dilution and Goat anti rabbit IgG(Alexa Fluor® 555) at 1/200 (red). Counterstained with DAPI (blue)



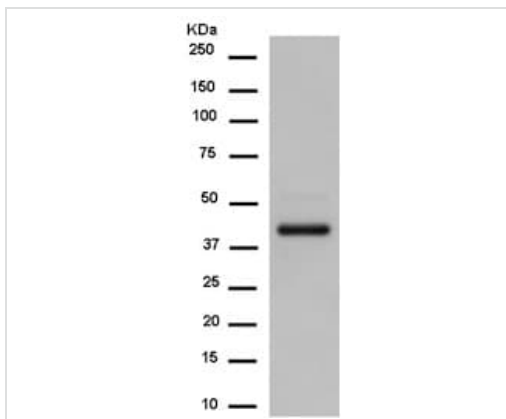
Immunoprecipitation - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Immunoprecipitation of HeLa cells labeling SMYD3 with ab183498 at 1/50 dilution and Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1500.



Flow Cytometry (Intracellular) - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Intracellular flow cytometric analysis of 293 cells fixed in 2% paraformaldehyde labeling SMYD3 with ab183498 at 1/110 dilution and Goat anti rabbit IgG (FITC) at 1/150 dilution. Rabbit Monoclonal IgG was used as an isotype control.



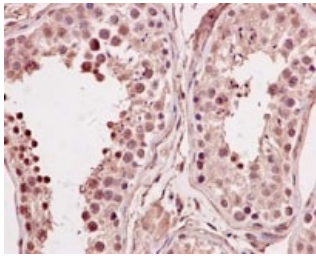
Western blot - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498) at 1/2000 dilution + MCF-7 lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 49 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Immunohistochemical analysis of paraffin-embedded Human testis labeling SMYD3 with ab183498 at 1/100 dilution and HRP Polymer for Rabbit IgG. Counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-SMYD3 antibody [EPR11106(2)] - N-terminal (ab183498)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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