abcam

Product datasheet

Anti-SMYD3 antibody [EPR19311] ab199361

KO VALIDATED Recombinant RabMAb

1 References 7 Images

Overview

Product name	Anti-SMYD3 antibody [EPR19311]
Description	Rabbit monoclonal [EPR19311] to SMYD3
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal kidney and fetal brain lysates; wild-type HAP1, HeLa, MCF7, HEK-293, T-47D, HCT 116, LLC, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; Mouse brain, kidney and spleen lysates; Rat brain and kidney lysates. IP: 293T whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19311

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab199361 in the following tested applications.

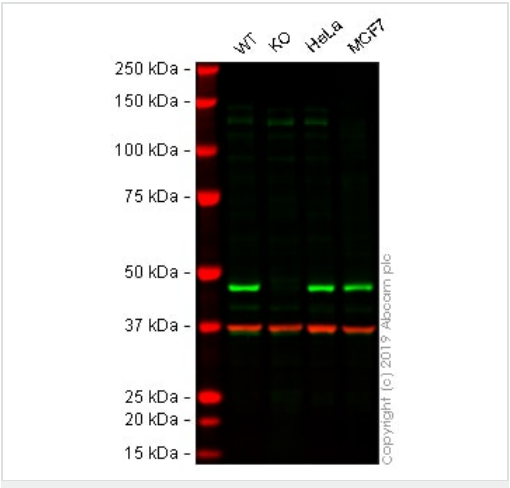
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000. Detects a band of approximately 45 kDa (predicted molecular weight: 49 kDa).
IP		1/50.

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 [EPR19311] (ab199361)

All lanes : Anti-SMYD3 antibody [EPR19311] (ab199361) 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

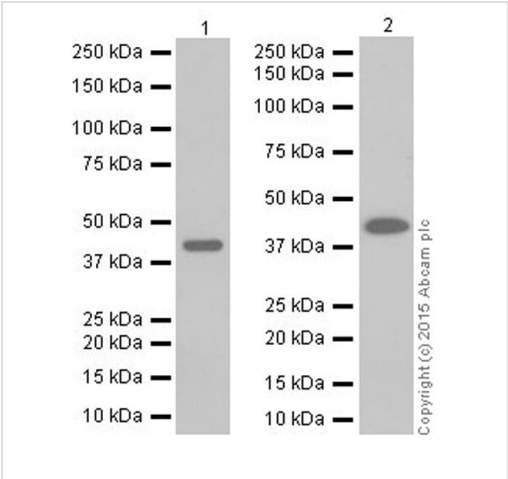
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 49 kDa
Observed band size: 49 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab199361 observed at 49 kDa. Red - loading control, **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab199361 was shown to react with SMYD3 in HAP1 wild-type cells in Western blot. Loss of signal was observed when SMYD3 knockout sample was used. HAP1 wild-type and SMYD3 knockout whole cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% Milk in TBS-T (0.1% Tween®) before incubation with ab199361 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 1000 dilution and a 1 in 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 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SMYD3 antibody [EPR19311] (ab199361)

All lanes : Anti-SMYD3 antibody [EPR19311] (ab199361) at 1/2000 dilution

Lane 1 : Human fetal kidney lysate
Lane 2 : Human fetal brain lysate

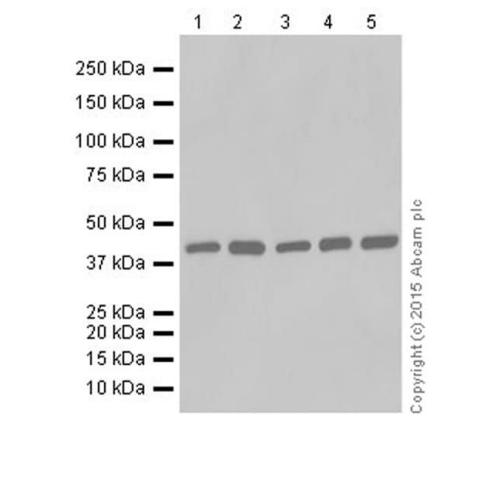
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 49 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-SMYD3 antibody [EPR19311] (ab199361)

All lanes : Anti-SMYD3 antibody [EPR19311] (ab199361) at 1/2000 dilution

Lane 1 : HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate
Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 3 : T-47D (Human ductal breast epithelial tumor cell line) whole cell lysate
Lane 4 : HCT 116 (Human colorectal carcinoma cell line) whole cell lysate
Lane 5 : LLC (Mouse lung carcinoma cell line) whole cell lysate

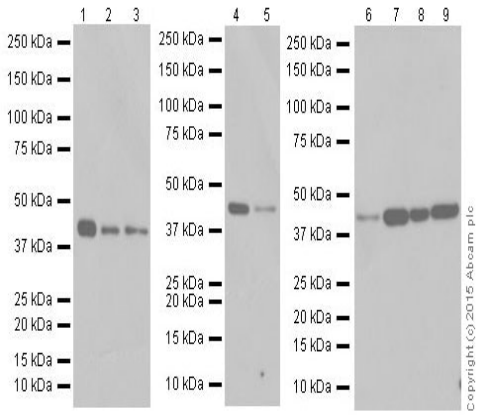
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 49 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-SMYD3 antibody [EPR19311] (ab199361)

All lanes : Anti-SMYD3 antibody [EPR19311] (ab199361) at 1/2000 dilution

Lane 1 : Mouse brain lysate
Lane 2 : Mouse kidney lysate
Lane 3 : Mouse spleen lysate
Lane 4 : Rat brain lysate
Lane 5 : Rat kidney lysate
Lane 6 : C6 (Rat glial tumor cell line) whole cell lysate
Lane 7 : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate
Lane 8 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate
Lane 9 : NIH/3T3 (Mouse embryo fibroblast cell line) whole cell lysate

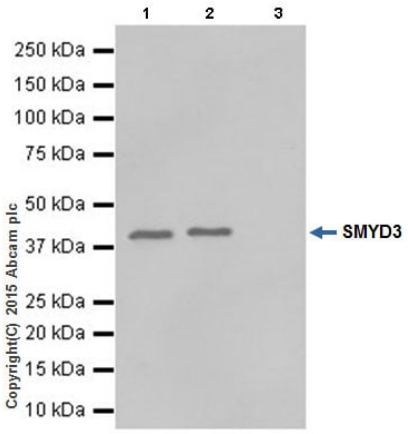
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 49 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunoprecipitation - Anti-SMYD3 antibody [EPR19311] (ab199361)

SMYD3 was immunoprecipitated from 1mg of 293T (Human epithelial cell line from embryonic kidney) whole cell lysate with ab199361 at 1/50 dilution.

Western blot was performed from the immunoprecipitate using ab199361 at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

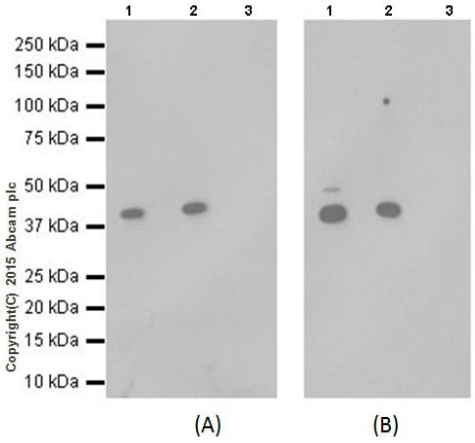
Lane 1: 293T whole cell lysate, 10µg (Input).

Lane 2: ab199361 IP in 293T whole cell lysate.

Lane 3: Rabbit IgG,monoclonal [EPR25A]-Isotype Control (**ab172730**) instead of ab199361 in 293T whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.



Immunoprecipitation - Anti-SMYD3 antibody [EPR19311] (ab199361)

SMYD3 was immunoprecipitated from 1mg of 293T (Human epithelial cell line from embryonic kidney) whole cell lysate with ab199361 at 1/50 dilution.

Western blot was performed from the immunoprecipitate using ab199361 at 1/1000 dilution (Panel A) or **ab183498** at 1/1000 dilution (Panel B).

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: 293T whole cell lysate, 10µg (Input).

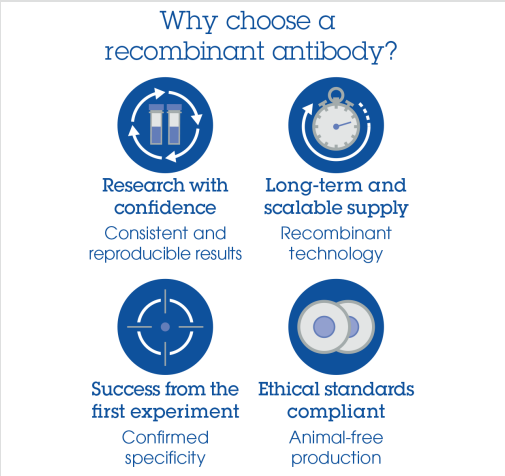
Lane 2: ab199361 IP in 293T whole cell lysate.

Lane 3: Rabbit IgG,monoclonal [EPR25A]-Isotype Control (**ab172730**) instead of ab199361 in 293T whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 minutes.

The product was validated with **ab183498**, which is specific to SMYD3.



Anti-SMYD3 antibody [EPR19311] (ab199361)

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