abcam

Product datasheet

Anti-SET7 antibody [EPR5574] ab124708

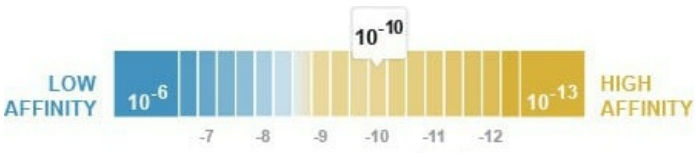
KO VALIDATED Recombinant RabMAb

5 References 8 Images

Overview

Product name	Anti-SET7 antibody [EPR5574]
Description	Rabbit monoclonal [EPR5574] to SET7
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human SET7. The exact sequence is proprietary. Database link: **Q8WTS6**
Positive control	WB: HeLa, U-2 OS, BxPC-3, Jurkat, MCF-7, C6, RAW264.7, PC-12, and NIH/3T3 cell lysates.
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. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 6.93 \times 10^{-10}$ M  **Learn more about K_D**
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5574
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124708 in the following tested applications.

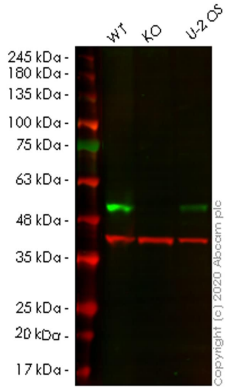
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 41 kDa.
IP		1/120. **For unpurified use at 1/10 - 1/100.**

Target

Function	Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in the transcriptional activation of genes such as collagenase or insulin. Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription. Has also methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins. Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II. Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation. Also able to demethylated 'Lys-372' of p53/TP53 in vitro.
Tissue specificity	Widely expressed. Expressed in pancreatic islets.
Sequence similarities	Belongs to the histone-lysine methyltransferase family. SET7 subfamily. Contains 3 MORN repeats. Contains 1 SET domain.
Domain	The SET domain is necessary but not sufficient for histone methyltransferase activity.
Cellular localization	Nucleus. Chromosome.

Images



Western blot - Anti-SET7 antibody [EPR5574] (ab124708)

All lanes : Anti-SET7 antibody [EPR5574] (ab124708) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : SETD7 knockout HeLa cell lysate
Lane 3 : U-2 OS cell lysate

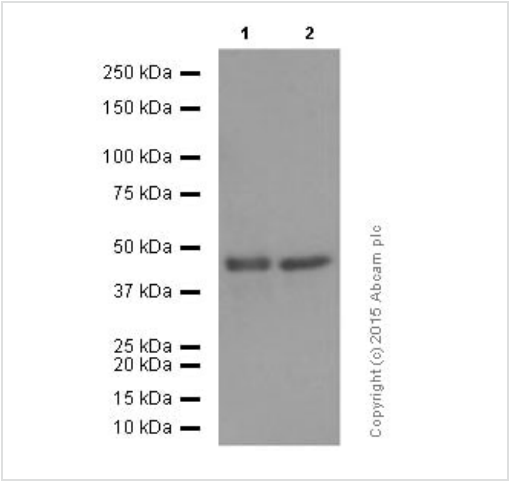
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 41 kDa
Observed band size: 50 kDa

Lanes 1-3: Merged signal (red and green). Green - ab124708 observed at 50 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab124708 Anti-SET7 antibody [EPR5574] was shown to specifically react with SET7 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265770** (knockout cell lysate **ab257668**) was used. Wild-type and SET7 knockout samples were subjected to SDS-PAGE. ab124708 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated at room temperature for 2. 5 hours at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SET7 antibody [EPR5574] (ab124708)

All lanes : Anti-SET7 antibody [EPR5574] (ab124708) at 1/5000 dilution (purified)

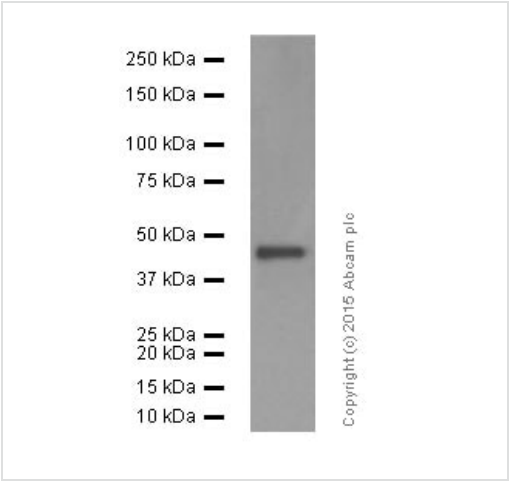
Lane 1 : PC-12 cell lysate
Lane 2 : NIH/3T3 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/1000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 41 kDa

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



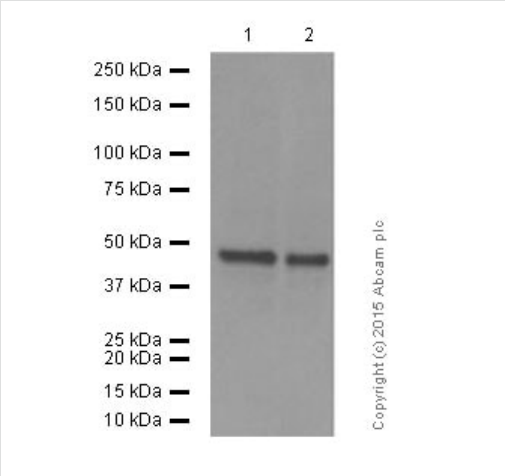
Western blot - Anti-SET7 antibody [EPR5574] (ab124708)

Anti-SET7 antibody [EPR5574] (ab124708) at 1/5000 dilution (purified) + MCF-7 cell lysate at 20 µg

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/1000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 41 kDa

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



Western blot - Anti-SET7 antibody [EPR5574] (ab124708)

All lanes : Anti-SET7 antibody [EPR5574] (ab124708) at 1/2000 dilution (purified)

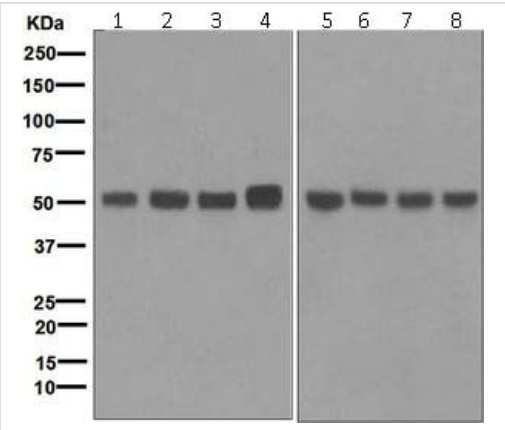
Lane 1 : HeLa cell lysate
Lane 2 : Jurkat cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/1000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 41 kDa

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



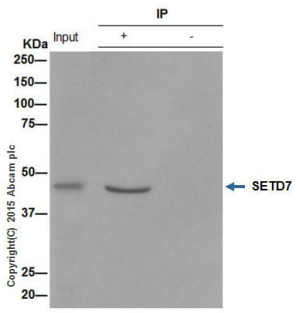
Western blot - Anti-SET7 antibody [EPR5574] (ab124708)

All lanes : Anti-SET7 antibody [EPR5574] (ab124708) at 1/1000 dilution (unpurified)

Lane 1 : HeLa cell lysate
Lane 2 : BxPC-3 cell lysate
Lane 3 : Jurkat cell lysate
Lane 4 : MCF-7 cell lysate
Lane 5 : C6 cell lysate
Lane 6 : RAW264.7 cell lysate
Lane 7 : PC-12 cell lysate
Lane 8 : NIH/3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 41 kDa

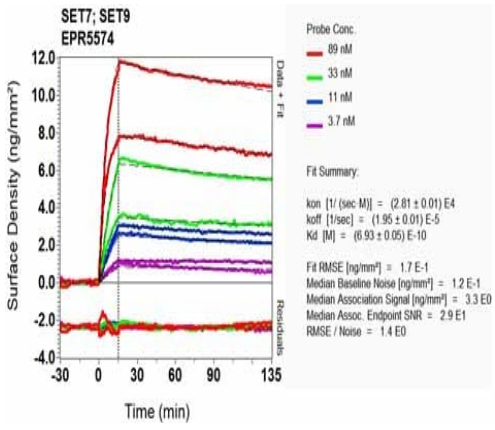


Immunoprecipitation - Anti-SET7 antibody [EPR5574] (ab124708)

ab124708 (purified) at 1/120 immunoprecipitating SET7 in Jurkat whole cell lysate. 10 ug of cell lysate was present in the input. For western blotting, a HRP-conjugated Veriblot for IP Detection Reagent (**ab131366**) (1/1,500) was used for detection. A rabbit monoclonal IgG (**ab172730**) was used intead of **ab128913** as a negative control (Lane 3).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

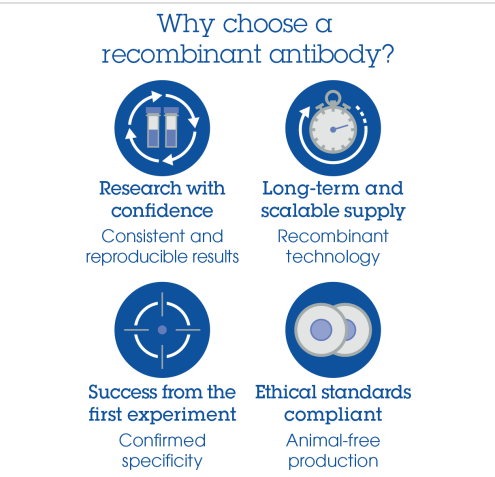


OI-RD Scanning - Anti-SET7 antibody [EPR5574] (ab124708)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-SET7 antibody [EPR5574] (ab124708)

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