abcam

Product datasheet

Anti-SET7 antibody [s4E5] ab14820

1 Abreviews 15 References 7 Images

Overview

Product name	Anti-SET7 antibody [s4E5]
Description	Mouse monoclonal [s4E5] to SET7
Host species	Mouse
Specificity	This antibody has been tested against recombinant SET7 but has not been tested against the endogenous protein yet.
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Human, Recombinant fragment
Immunogen	Recombinant full length protein corresponding to Human SET7.
Positive control	WB: Recombinant SET7, SET7/9 transfected 293T cell lysate. ICC/IF: HeLa cells. Flow Cyt (Intra): Jurkat cells; HeLa Cells.
General notes	This product was changed from ascites to tissue culture supernatant on 24/01/2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 10% Glycerol
Purity	Tissue culture supernatant
Purification notes	Purified from TCS.

Clonality	Monoclonal
Clone number	s4E5
Myeloma	Sp2/0
Isotype	IgG2b
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab14820 in the following tested applications.

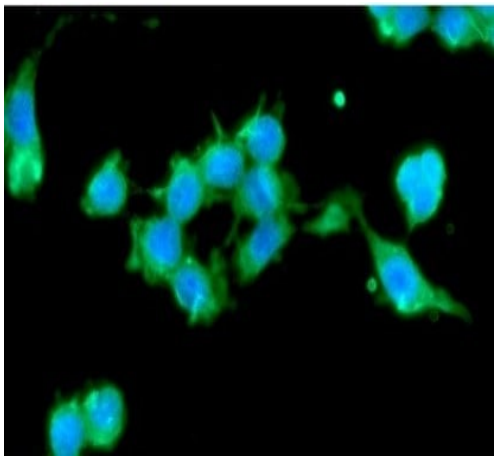
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/250 - 1/2000. Predicted molecular weight: 50 kDa.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use 1µg for 10^6 cells. **ab170192** - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Target

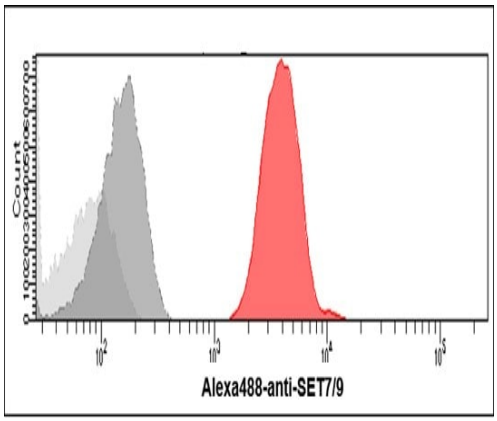
Function	Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in the transcriptional activation of genes such as collagenase or insulin. Recruited by IPF1/PDX-1 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



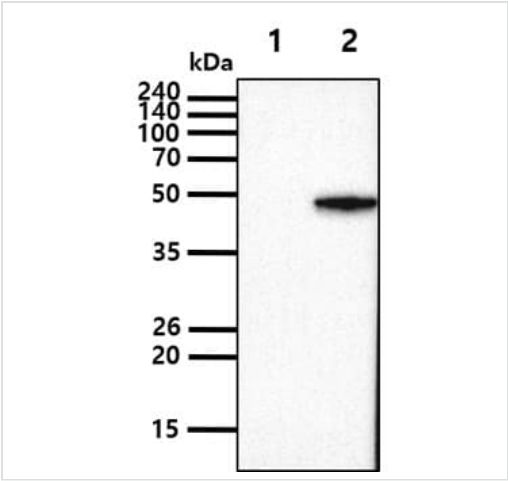
Immunocytochemistry/ Immunofluorescence - Anti-SET7 antibody [s4E5] (ab14820)

Immunocytochemistry/ Immunofluorescence analysis of SET7/9 in HeLa cells. The cell was stained with ab14820 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



Flow Cytometry (Intracellular) - Anti-SET7 antibody [s4E5] (ab14820)

Flow cytometry analysis of SET7/9 in Jurkat cells. The cell was stained with ab14820 at 2-5µg for $1x10^6$ cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (blue), cells without incubation with primary and secondary antibody was used as the negative control (black).



Western blot - Anti-SET7 antibody [s4E5] (ab14820)

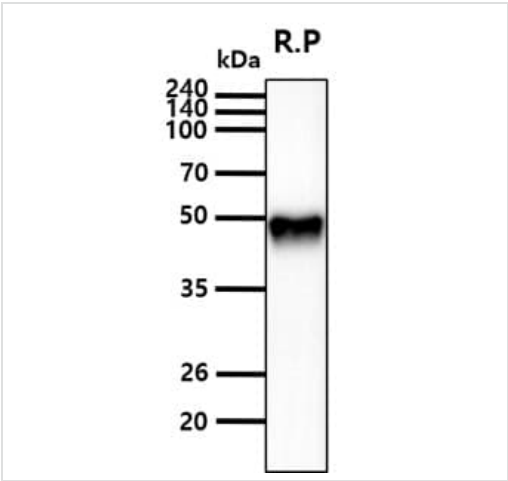
All lanes : Anti-SET7 antibody [s4E5] (ab14820) at 1/2000 dilution

Lane 1 : 293T cell lysate
Lane 2 : SET7/9 transfected 293T cell lysate

Lysates/proteins at 5 µg per lane.

Secondary
All lanes : goat anti-mouse secondary antibody conjugated to HRP

Predicted band size: 50 kDa

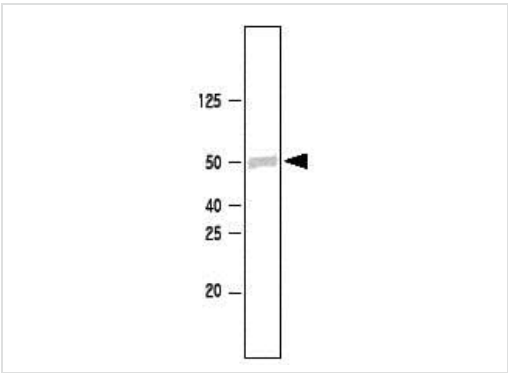


Western blot - Anti-SET7 antibody [s4E5] (ab14820)

Anti-SET7 antibody [s4E5] (ab14820) at 1/1000 dilution + Recombinant human SET7/9 protein

Secondary
Goat anti-mouse secondary antibody conjugated to HRP

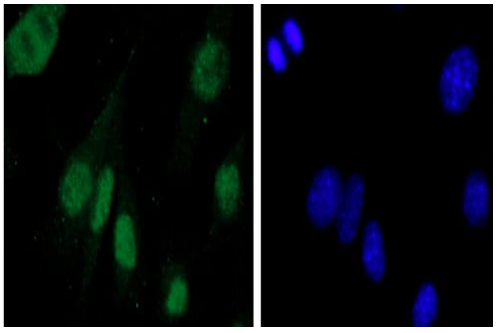
Predicted band size: 50 kDa



Western blot - Anti-SET7 antibody [s4E5] (ab14820)

Western blot analysis of recombinant SET7 using ab14820 at 1/1000. Proteins were visualised using a goat anti-mouse secondary antibody conjugated to HRP and a DAB detection system. Western blot analysis of recombinant SET7 using ab14820 at 1/1000. Proteins were visualised using a goat anti-mouse secondary antibody conjugated to HRP and a DAB detection system.

This image was produced using the ascites version of this antibody.

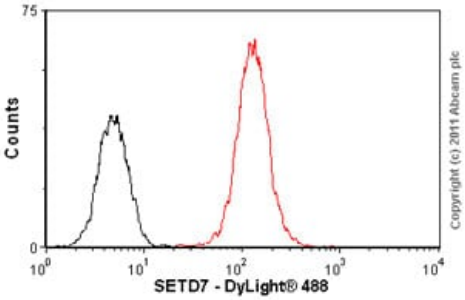


Immunocytochemistry/ Immunofluorescence - Anti-SET7 antibody [s4E5] (ab14820)

This image is courtesy of Katia Ancelin

Immunoflouresence was carried out using mouse cells in culture. Conditions: 4% PFA fixation and dilution with 0.5% triton, 10mg/ml BSA in PBS. Dilution of ab14820 used: 1/50. Green = ab14820 detected with secondary antibody (Alexa 488). Blue = DAPI stain.

This image was produced using the ascites version of this antibody.



Flow Cytometry (Intracellular) - Anti-SET7 antibody [s4E5] (ab14820)

Overlay histogram showing HeLa cells stained with ab14820 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab14820, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (**ab91366**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

This image was produced using the ascites version of this antibody.

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