

Human SETD7 antibody

Catalog Number: AHR0401

PRODUCT INFORMATION

Catalog number

AHR0401

Clone No.

s4E5

Product type

Monoclonal Antibody

UnitProt No.

Q8WTS6

NCBI Accession No.

NP_085151

Alternative Names

SETD7, SET7, SET9, SET7/9, SET7/9 Histone methyltransferase, SET domain-containing protein 8, SET domain-containing protein 7 FLJ21193, SET domain-containing protein 7, Lysine N-methyltransferase 7, Lysine methyltransferase, KMT7, KIAA1717, Histone-lysine N-methyltransferase SETD7, Histone-lysine N-methyltransferase, Histone lysine N methyltransferase H3 lysine 4 specific SET7, Histone lysine methyltransferase, Histone H4-K4 methyltransferase, Histone H3-K4 methyltransferase SETD7, Histone H3 lysine 4 specific methyltransferase, Histone H3 K4 methyltransferase, H4 lysine-4 specific, H3-K4-HMTase SETD7, H3 K4 HMTase, EC 2.1.1.43

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human SET 7/9 (1-366aa) purified from E. coli

Isotype

IgG2b kappa

Purification Note

By protein-A affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

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Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

SET 7/9 is a histone methyltransferase (HMTase) that transfers methyl group to Lys4 of histone H3, in complex with S-adenosyl-L-methionine (AdoMet). The methylation of lysine residues of histones plays a critical role in the regulation of chromatin structure and gene expression. Acetylation, phosphorylation and methylation of the amino-terminal tails of histone are thought to be involved in the regulation of chromatin structure and function. The enzymes identified in the methylation of specific lysine residue on histones belong to the SET family with just one exception. Set7/9, unlike most other SET proteins, is exclusively a mono-methylase.

General References

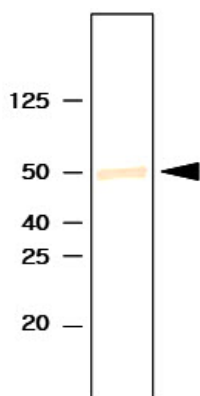
Bing X, et al., (2003) Nature 421: 652-56.

Taewoo K, et al., (2003) EMBO. 22: 292-303.

Nishioka K, et al., (2002) Genes Dev. 16: 479-89.

DATA

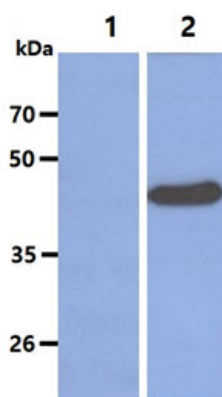
Western blot analysis (WB)



The recombinant human SET 7/9 protein was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human SET 7/9 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

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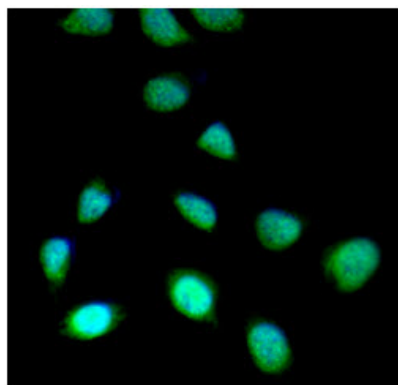


The cell lysates (5ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human SET 7/9 antibody (1:2000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: 293T cell lysate

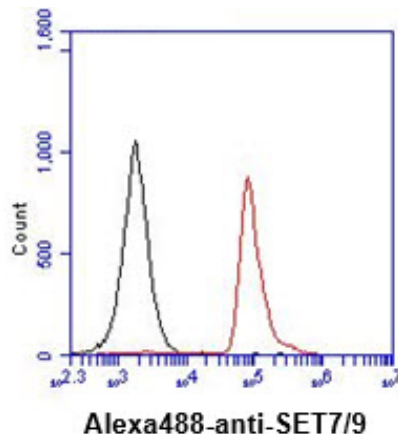
Lane 2.: SET 7/9 transfected 293T cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of SET 7/9 in HeLa cells. The cell was stained with AHR0401 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of SET 7/9 in Jurkat cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).