

Anti-hSET1/SET1 Antibody [PH00-02]



HA721226

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, FC
Molecular Wt:	Predicted band size: 186 kDa
Clone number:	PH00-02

Description: Histone methyltransferase that catalyzes methyl group transfer from S-adenosyl-L-methionine to the epsilon-amino group of 'Lys-4' of histone H3 (H3K4) via a non-processive mechanism. Part of chromatin remodeling machinery, forms H3K4me1, H3K4me2 and H3K4me3 methylation marks at active chromatin sites where transcription and DNA repair take place. Responsible for H3K4me3 enriched promoters and transcriptional programming of inner mass stem cells and neuron progenitors during embryogenesis. Required for H3K4me1 mark at stalled replication forks. Mediates FANCD2-dependent nucleosome remodeling and RAD51 nucleofilaments stabilization at reversed forks, protecting them from nucleolytic degradation. Does not methylate 'Lys-4' of histone H3 if the neighboring 'Lys-9' residue is already methylated.

Immunogen: Recombinant protein within C terminal human SET1A.

Positive control: 293T cell lysates, 293T, HepG2.

Subcellular location: Chromosome, Nucleus

Database links: SwissProt: O15047 Human | E9PYH6 Mouse | A0A8I6AS32 Rat

Recommended Dilutions:

WB	1:1,000
FC	1:500-1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Images

Fig1: Western blot analysis of hSET1/SET1 on 293T cell lysates with Rabbit anti-hSET1/SET1 antibody (HA721226) at 1/1,000 dilution.

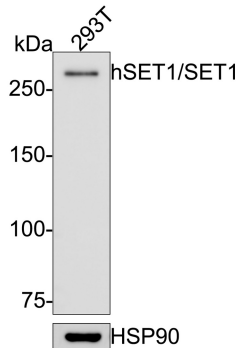
Lysates/proteins at 10 µg/Lane.

Predicted band size: 186 kDa

Observed band size: 300 kDa

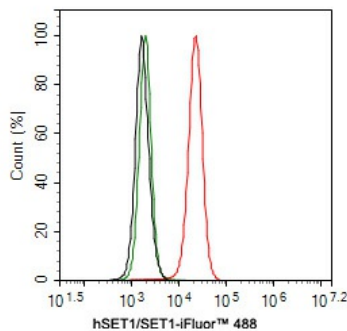
Exposure time: 2 minutes;

6% SDS-PAGE gel.



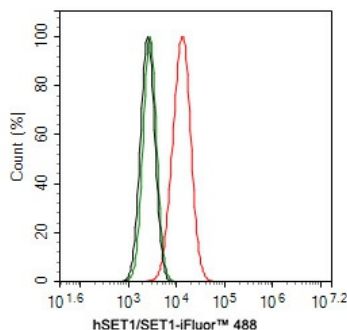
Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721226) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

Fig2: Flow cytometric analysis of 293T cells labeling hSET1/SET1.



Cells were fixed and permeabilized. Then stained with the primary antibody (HA721226, 1 µg/ml) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4 °C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Fig3: Flow cytometric analysis of HepG2 cells labeling hSET1/SET1.



Cells were fixed and permeabilized. Then stained with the primary antibody (HA721226, 1 µg/ml) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4 °C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Kummeling J., et al. Characterization of SETD1A haploinsufficiency in humans and Drosophila defines a novel neurodevelopmental syndrome. *Mol. Psychiatry* 26:2013-2024 (2021)
2. Wysocka J., Myers M.P., Laherty C.D., Eisenman R.N., Herr W. Human Sin3 deacetylase and trithorax-related Set1/Ash2 histone H3-K4 methyltransferase are tethered together selectively by the cell- proliferation factor HCF-1. *Genes Dev.* 17:896-911 (2003)

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