

For Research Use Only

Mono/Di-Methyl-Histone H3 (Lys4) Recombinant monoclonal antibody

Catalog Number: 84747-1-RR



Basic Information

Catalog Number:

84747-1-RR

Size:

100ul, Concentration: 1000 µg/ml by
Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC066245

GeneID (NCBI):

8350

UNIPROT ID:

P68431

Full Name:

histone cluster 1, H3a

Observed MW:

17 kDa

Purification Method:

Protein A purification

CloneNo.:

241941D10

Recommended Dilutions:

WB: 1:500-1:2000

IP: 0.5-4.0 µg for 1.0-3.0 mg of total
protein lysate

IF/ICC: 1:200-1:800

FC (Intra): 0.25 µg per 10⁶ cells in a
100 µl suspension

Dot Blot: 1:10-1:100

ChIP-qPCR: 1:10-1:100

Applications

Tested Applications:

WB, IF/ICC, FC (Intra), IP, Dot Blot, ELISA, ChIP-qPCR

Species Specificity:

human, mouse, rat

Positive Controls:

WB: HEK-293T cells, MCF-7 cells, NIH/3T3 cells, HSC-
T6 cells

IP: HeLa cells,

IF/ICC: HeLa cells,

FC (Intra): HeLa cells,

Dot Blot: / /,

ChIP-qPCR: HEK-293T cells,

Background Information

Histones are small, highly basic proteins that consist of a globular domain with unstructured N- and C-terminal tails protruding from the main structure. Histone H3 is one of the five main histones that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. In addition to their role in DNA compartmentalization, histones also play crucial roles in various biologic processes, including gene expression and regulation, DNA repair, chromatin condensation, cell cycle progression, chromosome segregation, and apoptosis. The ability of histones to regulate chromatin dynamics primarily originates from various posttranslational modifications carried out by histone-modifying enzymes.

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

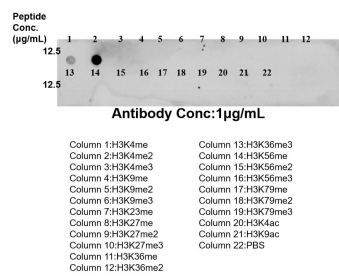
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free
in USA), or 1(312) 455-8498 (outside USA)

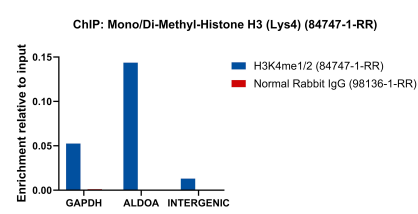
E: proteintech@ptglab.com
W: ptglab.com

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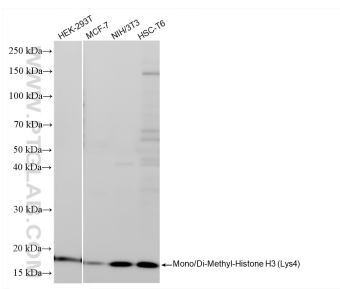
Selected Validation Data



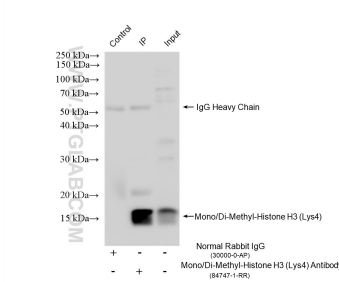
Dot blot analysis was used to confirm the specificity of 84747-1-RR Mono/Di-Methyl-Histone H3 (Lys4) antibody. peptides were spotted onto NC and probed with antibody at 1 µg/mL. The amount of peptide (µg/mL) spotted is indicated next to each row.



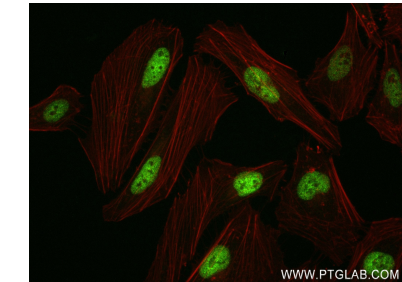
Chromatin was prepared from HEK-293T cells. Cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 15 µg of cross-linked chromatin, 5 µg of Mono/Di-Methyl-Histone H3 (Lys4) (84747-1-RR) or 5 µg of Normal Rabbit IgG (98136-1-RR), and 20 µl of Protein A Magarose Beads. The immunoprecipitated DNA was quantified by real-time PCR.



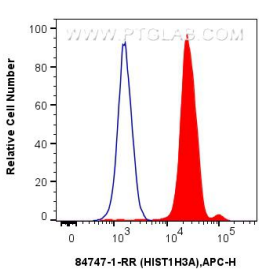
Various lysates were subjected to SDS PAGE followed by western blot with 84747-1-RR (Mono/Di-Methyl-Histone H3 (Lys4) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP result of anti-Mono/Di-Methyl-Histone H3 (Lys4) (IP:84747-1-RR, 4ug; Detection:84747-1-RR 1:500) with HeLa cells lysate 1320 ug.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Mono/Di-Methyl-Histone H3 (Lys4) antibody (84747-1-RR, Clone: 241941D10) at dilution of 1:400 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



1x10⁶ HeLa cells were intracellularly stained with 0.25 µg Mono/Di-Methyl-Histone H3 (Lys4) Recombinant Antibody (84747-1-RR, Clone:241941D10) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 µg Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set.