



Rabbit anti Histone H3((Monomethylation at Lys4) Polyclonal Antibody

Alternative Name(s): HIST1H3A

Order Information

- **Description:** Histone H3(Monomethylation at Lys4)
- **Catalogue:** 602-740
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Rabbit
- **Clone:** nan
- **Application:** WB, IP, IF
- **Reactivity:** Hu, Ms, Rt

ANTIGEN PREPARATION

A synthetic peptide containing RT[Me1-K]QT in which Me1-K corresponds to Mono-methyl lysine 4 of human histone H3

BACKGROUND

Histones are basic nuclear proteins that together with DNA make up the nucleosome structure in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The methylation of specific residues in the histone tails is a central modification for regulating epigenetic transitions in chromatin. Whereas methylation of histone H3 on lysine 4, 36, and 79 has been linked with gene activation, methylation of H3 on lysines 9, 27 and histone H4 on lysine 20 is associated with heterochromatin and some repressed genes with euchromatin. Modified lysine residues can exist in a mono-, di-, or tri-methylated state, while the arginine residues can be mono- or di-methylated. Histone H3 Lys4 methylation (H3-K4me) is a conserved mark of actively transcribed chromatin. This antibody is specific for histone H3 tri-methylated at K4. The sequence is found in all mammals and a wide range of species, including *D. melanogaster*, *Arabidopsis*, *Chicken* and *Xenopus*. The antibody will react with any of the above species where the trimethylation modification is present.

PURIFICATION

The Rabbit IgG is purified by site-modified Epitope Affinity Purification.

FORMULATION

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

SPECIFICITY

This antibody only recognizes ~ 17 kDa of Mono-methylated Histone H3 at K4. It does not cross react to non-methylated H3 or di-, Tri-methylated Histone H3.

STORAGE

The antibodies are stable for 24 months from date of receipt when stored at -20oC to -70oC. The antibodies can be stored at 2oC-8oC for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

APPLICATIONS/SUGGESTED WORKING DILUTIONS*

- Western Blot: 0.1-1 µg/ml
- ELISA: 0.01-0.1 µg/ml
- Immunoprecipitation: 2-5 µg/ml
- IHC: 2-10 µg/ml
- Flow cytometry: Not tested
- Molecular Weight: 17.0
- Positive Control: Kidney Tissue

FOR RESEARCH USE ONLY.

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- Cellular Location: Cell Membrane

*Optimal dilutions should be determined by researchers for the specific applications.

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DATA ATTACHMENTS



Western Blot: The nuclear extract derived from 3T3 were immunoprecipitated by 4ug of Rabbit anti-Mono-methyl Histone H3 (K4) (Cat#602-740, then probed with Rb anti -Mono-methyl Histone H3 (K4), (Cat # 602-740) at 1:1000. An immunoreactive band at ~17kDa is observed. Note: ~50 kDa and ~22 kDa are the rabbit immunoglobulin heavy and light chain

REFERENCES

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