

ProteinFind® Anti-Histone H3 Mouse Monoclonal Antibody

Please read the manual carefully before use.

Cat. No. HL102

Storage: PBS (pH 7.4), 0.02% Sodium Azide, 50% Glycerol; at -20°C for two years, avoid repeated freeze-thawing.

Description

Histone H3 is an important component of the nucleosome, which, along with H2A, H2B, and H4, forms a heterooctamer around which the DNA tightly wraps to form a nucleosome^[1]. Histone H3 plays an important role in cell proliferation, transcription regulation, DNA repair and replication, chromosomal stability, etc. A variety of post-translational modifications of Histone H3 bring about changes in function^[2], phosphorylation of Histone H3 at Ser10^[3] and Ser28^[4] regulates chromosome condensation during mitosis, Histone H3 at Lys4, Lys9, and Lys14 can be methylated by histone methyltransferases, thereby affecting DNA transcription^{[5][6]}.

Species Reactivity: Human, mouse, rat, guinea pig, hamster and green monkey (the results of species reactivity were determined by WB experiment).

Antibody Subtype: Mouse IgG1

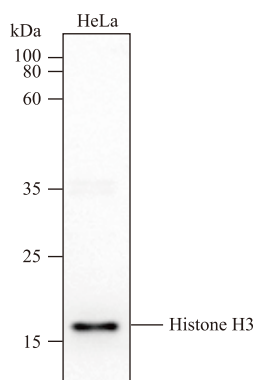
Immunogen

- Recombinant human Histone H3 full-length protein
- Entrez Gene ID: 8350
- UniProt ID: P68431

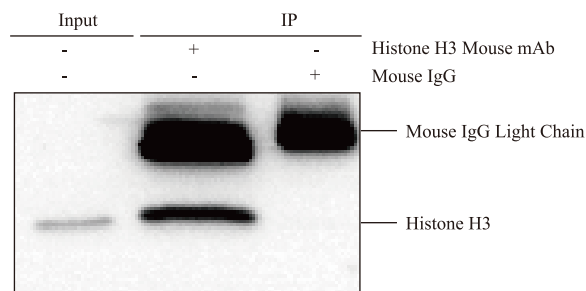
Applicable Experiment and Dilution

- Western Blot: recommended dilution 1:1000-5000.
- IP: recommended dilution 1:100.
- IF: recommended dilution 1:100-400.
- IHC: recommended dilution 1:100-500 (Citrate retrieval).

Positive Control Cell Line: HeLa cells

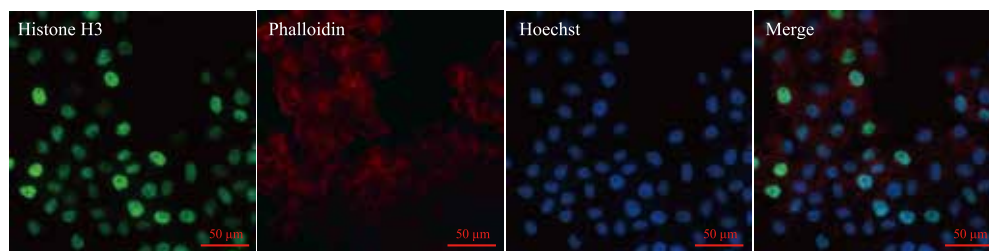


WB: *ProteinFind*® Anti-Histone H3 Mouse Monoclonal Antibody was used to detect the expression of Histone H3 protein in HeLa cells.
Dilution ratio of primary antibody: 1:1000
Predicted molecular weight: 17 kDa

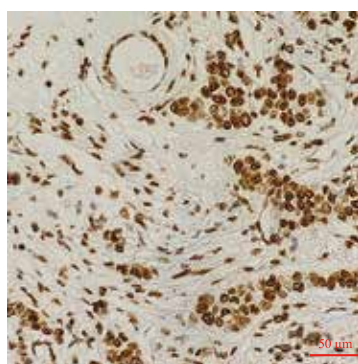


IP: Detection result of HeLa cell lysate using *ProteinFind*® Anti-Histone H3 Mouse Monoclonal Antibody.
Lane 1: 5% Input.
Lane 2: *ProteinFind*® Anti-Histone H3 Mouse Monoclonal Antibody is used.
Lane 3: Mouse IgG negative control.
Dilution ratio of primary antibody: 1:100





IF: *ProteinFind*[®] Anti-Histone H3 Mouse Monoclonal Antibody (green) for detection the localization of endogenous Histone H3 in HeLa cells.
Phalloidin is used to label the F-actin (red), Hoechst is used to label the nucleus (blue).
Dilution ratio of primary antibody: 1:400



IHC: Detection result of breast cancer tissue using *ProteinFind*[®] Anti-Histone H3 Mouse Monoclonal Antibody.
Antigen retrieval solution: Citrate (pH 6.0)
Primary antibody dilution factor: 1:500

References

- [1]. Workman JL, Kingston RE. Alteration of nucleosome structure as a mechanism of transcriptional regulation[J]. Annual Review of Biochemistry. 1998, 67 (1): 545-79.
- [2]. Garcia BA, Barber CM, Hake SB, Ptak C, Turner FB, Busby SA, et al. Modifications of human histone H3 variants during mitosis[J]. Biochemistry. 2005, 44 (39): 13202.
- [3]. Kaszás E, Cande WZ. Phosphorylation of histone H3 is correlated with changes in the maintenance of sister chromatid cohesion during meiosis in maize, rather than the condensation of the chromatin[J]. Journal of Cell Science. 2000, 113 (Pt 18) (18): 3217.
- [4]. Goto H, Tomono Y, Ajiro K, Kosako H, Fujita M, Sakurai M, et al. Identification of a Novel Phosphorylation Site on Histone H3 Coupled with Mitotic Chromosome Condensation[J]. Journal of Biological Chemistry. 1999, 274 (36): 25543-9.
- [5]. Lee DY, Teyssier C, Strahl BD, Stallcup MR. Role of protein methylation in regulation of transcription[J]. Endocrine Reviews. 2005, 26 (2): 147-70.
- [6]. Strahl BD, Allis CD. The language of covalent histone modifications[J]. Nature. 2000, 403 (6765): 41.

For research use only, not for clinical diagnosis

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