

Mouse Anti-Histone H1 (Nuclear Marker) [AE-4]: MC0051

Intended Use: For Research Use Only

Description: Eukaryotic histones are basic and water-soluble nuclear proteins that form hetero-octameric nucleosome particles by wrapping 146 base pairs of DNA in a left-handed super-helical turn sequentially to form chromosomal fiber. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form the octamer; formed of two H2A-H2B dimers and two H3-H4 dimers, forming two nearly symmetrical halves by tertiary structure. Over 80% of nucleosomes contain the linker Histone H1, derived from an intronless gene that interacts with linker DNA between nucleosomes and mediates compaction into higher order chromatin. Histones are subject to posttranslational modification by enzymes primarily on their N-terminal tails, but also in their globular domains. Such modifications include methylation, citrullination, acetylation, phosphorylation, sumoylation, ubiquitination and ADP-ribosylation.

Specifications

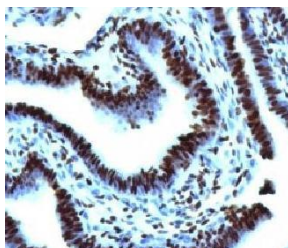
Clone: AE-4
 Source: Mouse
 Isotype: IgG2a/k
 Reactivity: Human, mouse, rat
 Localization: Nucleus
 Formulation: Protein A/G purified antibody from bioreactor concentrate. Prepared in 10mM PBS with 0.2% BSA and < 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles
 Applications: IHC, Flow Cyt., ICC/IF
 Package:

| Description | Catalog No. | Size |
|--|-------------|------|
| Histone H1 (Nuclear Marker) Concentrated | MC0051 | 1 ml |

IHC Procedure*

Positive Control Tissue: HeLa, A-431, LNCap or Jurkat cells. Breast carcinoma
 Concentrated Dilution: 50-200
 Pretreatment: Citrate pH6.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human ovarian carcinoma stained with anti-Histone H1 using DAB

References

1. GANP regulates recruitment of AID to immunoglobulin variable regions by modulating transcription and nucleosome occupancy. Singh SK, et al. Nat Commun 4:1830, 2013.
2. A method for preserving ultrastructural properties of mitotic cells for subsequent immunogold labeling using low-temperature embedding in LR White resin. Sobol M et al. Histochem Cell Biol 135:103-10, 2011.
3. Comparison of methods of high-pressure freezing and automated freeze-substitution of suspension cells combined with LR White embedding. Sobol M, et al. Histochem Cell Biol 134:631-41, 2010.
4. Myc-binding-site recognition in the human genome is determined by chromatin context. Guccione E. et al. Nat Cell Biol 8:764-70, 2006.

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