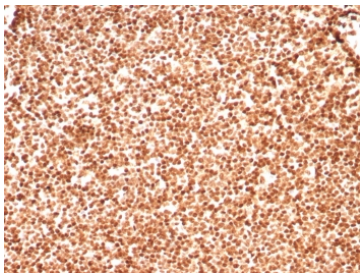
Histone H1 Antibody / Chromatin Boundary and Domain Insulation Antibody [clone rHH1/8702] (V4994)

Catalog No.	Formulation	Size
V4994-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4994-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4994SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

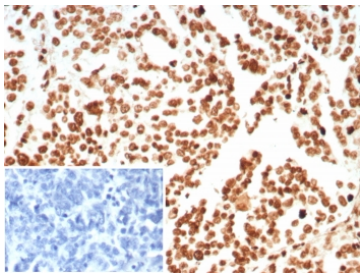
Recombinant | MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rHH1/8702
Purity	Protein A/G affinity
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Histone H1 antibody is available for research use only.



Histone H1 Antibody for IHC. Immunohistochemistry analysis of chromatin boundary-associated histone H1 expression in FFPE human lymph node tissue using Histone H1 Antibody. Nuclear HRP-DAB brown staining is observed in lymphoid cells, consistent with localization of linker histone H1 within chromatin domains and its role in chromatin boundary formation and domain insulation. Clone rHH1/8702 antibody demonstrates strong nuclear compartmentalization with minimal cytoplasmic staining, reflecting chromatin-associated distribution across organized chromatin domains.



Histone H1 Antibody for IHC. Immunohistochemistry analysis of chromatin boundary-associated histone H1 expression in FFPE human ovarian carcinoma tissue using Histone H1 Antibody. Nuclear HRP-DAB brown staining is observed in tumor epithelial cells, consistent with localization of linker histone H1 within chromatin domains and its role in chromatin boundary formation and domain insulation. Clone rHH1/8702 antibody demonstrates strong nuclear compartmentalization with minimal cytoplasmic staining, reflecting chromatin-associated distribution across organized chromatin domains. Inset: PBS was used in place of the primary antibody as a negative control.

Description

Histone H1 is a linker histone that contributes to the organization of chromatin into structurally distinct domains and boundary regions within the genome. Histone H1 Antibody detects H1 protein associated with chromatin partitioning, where linker histones help define the edges of chromatin domains and support genome organization at a higher structural level. This positioning emphasizes the role of histone H1 in separating chromatin into functional regions rather than simply compacting or spacing nucleosomes. This antibody is part of our broader Histone H1 antibody collection, including linker histone variants, chromatin organization, chromatin accessibility, and nuclear architecture reagents for chromatin and epigenetics research.

Histone H1 antibody, also referred to as H1 antibody or linker histone antibody in the literature, is widely used to study chromatin domain organization and genome partitioning. Histone H1 binds to linker DNA and influences nucleosome interactions, contributing to the establishment of chromatin regions with distinct structural properties. These regions form the basis of genome compartmentalization within the nucleus.

Mechanistically, histone H1 helps define chromatin boundaries by stabilizing local chromatin structure and limiting interactions between adjacent chromatin domains. This creates structural separation between chromatin regions and supports the maintenance of distinct chromatin environments. Such boundary formation is essential for preserving genome organization.

The role of histone H1 in chromatin boundary formation links local chromatin structure to larger-scale genome architecture. By contributing to the separation of chromatin domains, histone H1 supports spatial organization of the genome within the nucleus and helps maintain structural integrity across chromatin compartments.

Chromatin boundary formation is critical for maintaining stable genome organization and ensuring proper structural partitioning of chromatin. Histone H1 contributes to this process by reinforcing domain separation and supporting structural continuity within chromatin regions.

In contrast to chromatin condensation or nucleosome spacing, the function of histone H1 in chromatin boundary formation represents a higher-level organizational role that defines how chromatin is partitioned within the nucleus. This provides a distinct perspective on linker histone function in genome organization.

A recombinant mouse monoclonal antibody such as clone rHH1/8702 enables specific detection of histone H1 associated with chromatin boundaries and domain organization, supporting studies of genome partitioning, chromatin architecture, and nuclear organization.

Application Notes

Optimal dilution of the Histone H1 Antibody / Chromatin Boundary and Domain Insulation Antibody should be determined by the researcher.

Immunogen

Nuclei of human leukemia biopsy cells were used as the immunogen for the Histone H1 Antibody / Chromatin Boundary

and Domain Insulation Antibody.

Storage

Aliquot the Histone H1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Histone H1 antibody, H1 antibody, chromatin boundary histone H1 antibody, chromatin domain insulation H1 antibody

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