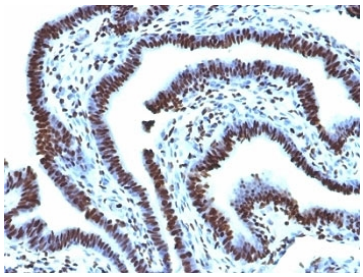
Histone H1 Antibody AE-4 / Total Linker Histone H1 Chromatin Antibody [clone AE-4] (V2565)

Catalog No.	Formulation	Size
V2565-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2565-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2565SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2565IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

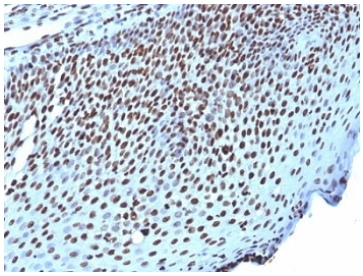
Citations (10)

Bulk quote request

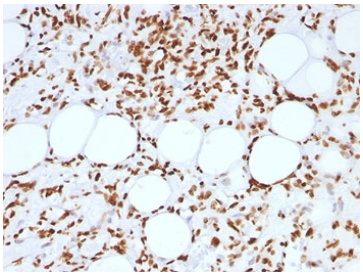
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	AE-4
Purity	Protein G affinity chromatography
UniProt	P07305
Localization	Nuclear
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This Histone H1 antibody is available for research use only.



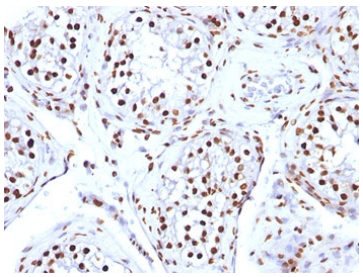
Histone H1 Antibody AE-4 in Human Ovarian Carcinoma IHC. Immunohistochemistry testing of clone AE-4 in FFPE human ovarian carcinoma tissue. Strong nuclear immunoreactivity is observed in tumor epithelial cells, consistent with the localization of total linker histone H1 to chromatin.



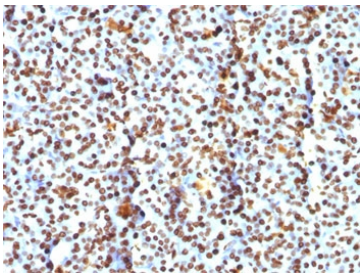
Histone H1 Antibody AE-4 in Human Tonsil IHC. Immunohistochemistry testing of clone AE-4 in FFPE human tonsil tissue. Strong nuclear immunoreactivity is observed throughout the tested tissue, consistent with the localization of total linker histone H1 to chromatin.



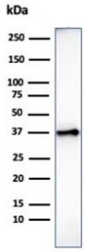
Histone H1 Antibody AE-4 in Human Angiosarcoma IHC. Immunohistochemistry testing of clone AE-4 in FFPE human angiosarcoma tissue. Prominent nuclear staining is observed in tumor cells, consistent with the chromatin-associated distribution of linker histone H1.



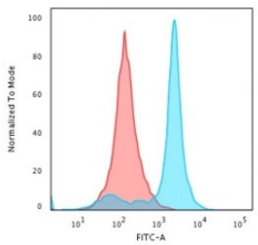
Histone H1 Antibody AE-4 in Human Testicular Carcinoma IHC. Immunohistochemistry testing of clone AE-4 in FFPE human testicular carcinoma tissue. Strong nuclear immunoreactivity is observed in tumor cells, demonstrating the expected chromatin-associated localization of linker histone H1.



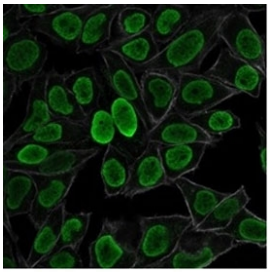
Histone H1 Antibody AE-4 in Human Pancreas IHC. Immunohistochemistry testing of clone AE-4 in FFPE human pancreas tissue. Nuclear staining is observed throughout the tested tissue, consistent with the localization of total linker histone H1 within chromatin.



Histone H1 Antibody AE-4 in Human Heart WB. Western blot testing of clone AE-4 in human heart tissue lysate. Immunoreactive bands are observed within the approximately 22-33 kDa range associated with members of the linker histone H1 family. The banding pattern is consistent with the presence of multiple histone H1 variants and their heterogeneous electrophoretic mobility.



Histone H1 Antibody AE-4 in Human HeLa Cervical Cancer Cells FACS. Flow cytometry testing of permeabilized human HeLa cervical cancer cells with clone AE-4 for detection of total linker histone H1. The antibody-stained population is shown in blue and the isotype control in red, demonstrating detection of the chromatin-associated histone H1 target.



Histone H1 Antibody AE-4 in Human HeLa Cervical Cancer Cells IF. Immunofluorescence testing of PFA-fixed human HeLa cervical cancer cells with clone AE-4 for detection of total linker histone H1. Strong nuclear staining is observed, consistent with the association of histone H1 with chromatin. Actin filaments are labeled with phalloidin (red), providing cytoskeletal contrast to the nuclear signal.

Description

Histone H1 Antibody AE-4 / Total Linker Histone H1 Chromatin Antibody recognizes linker histone H1, a major structural component of chromatin that binds DNA near the entry and exit sites of the nucleosome. Unlike the core histones H2A, H2B, H3 and H4, histone H1 associates with linker DNA between nucleosomes and contributes to nucleosome stabilization, chromatin compaction and higher-order genome organization. Histone H1 proteins therefore have important roles in controlling chromatin architecture and DNA accessibility.

Clone AE-4 is a well-characterized mouse monoclonal antibody that has been extensively used in published research involving histone H1 and chromatin biology. The clone recognizes linker histone H1 and has been used by researchers studying nuclear organization, chromatin structure and related cellular processes. Its substantial history in the scientific literature makes AE-4 an established clone for research requiring detection of histone H1.

The histone H1 family includes multiple closely related linker histone variants whose abundance and distribution can vary with cell type, differentiation state and cell-cycle activity. Rather than forming part of the nucleosome core, H1 proteins bind linker DNA and help stabilize interactions between neighboring nucleosomes. Changes in H1 abundance or composition can consequently influence nucleosome spacing, chromatin condensation and the accessibility of genomic DNA to transcriptional and regulatory machinery.

Because linker histones contribute to global chromatin organization, histone H1 is studied in areas ranging from epigenetics and transcriptional regulation to cell differentiation, development and cancer biology. Analysis of total linker histone H1 can complement studies of individual core histones and histone post-translational modifications by providing information about another major level of chromatin organization.

Clone AE-4 was generated using nuclei from human leukemia biopsy cells as the immunogen and is a mouse IgG2a kappa monoclonal antibody. The reagent recognizes histone H1 in human, mouse and rat samples. NSJ Bioreagents provides this Histone H1 Antibody AE-4 for research into linker histone distribution, chromatin architecture and nuclear organization. A Total Linker Histone H1 Chromatin Antibody can support studies examining the relationship between histone H1 and higher-order chromatin structure.

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.

Application Notes

Optimal dilution of the Histone H1 Antibody AE-4 / Total Linker Histone H1 Chromatin Antibody should be determined by

the researcher.

1. Staining of formalin/paraffin tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Nuclei of human leukemia biopsy cells were used as the immunogen for the Histone H1 Antibody AE-4 / Total Linker Histone H1 Chromatin Antibody.

Storage

Store the Histone H1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Histone H1 antibody, H1 antibody, linker histone H1 antibody, total H1 antibody

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