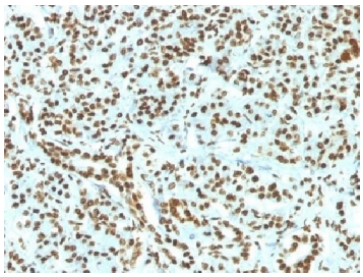
Histone H1 Antibody / Higher-Order Chromatin Fiber Formation Antibody [clone HH1/1784R] (V7278)

Catalog No.	Formulation	Size
V7278-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7278-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7278SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7278IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

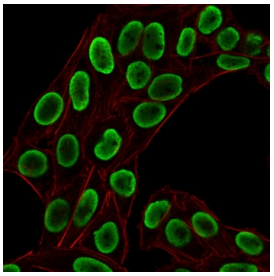
Recombinant RABBIT MONOCLONAL

Bulk quote request

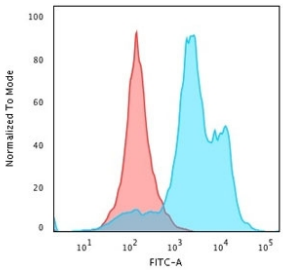
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	HH1/1784R
Purity	Protein A affinity chromatography
UniProt	P07305
Localization	Nuclear
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 1-2ug/ml
Limitations	This recombinant Histone H1 antibody is available for research use only.



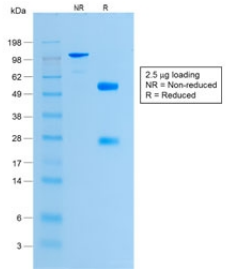
Histone H1 Antibody for IHC. Immunohistochemistry analysis of higher-order chromatin fiber-associated histone H1 expression in FFPE human pancreas tissue using Histone H1 Antibody. Nuclear HRP-DAB brown staining is observed in pancreatic epithelial cells, consistent with localization of linker histone H1 within chromatin and its role in higher-order chromatin fiber formation and genome organization. Clone HH1/1784R antibody demonstrates strong nuclear compartmentalization with minimal cytoplasmic staining, reflecting chromatin-associated distribution across organized chromatin domains.



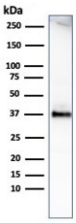
Histone H1 Antibody for IF. Immunofluorescence analysis of higher-order chromatin fiber-associated histone H1 expression in permeabilized human HeLa cells using Histone H1 Antibody (green). Strong nuclear staining is observed, consistent with localization of linker histone H1 within chromatin and its role in organizing nucleosome arrays into higher-order chromatin structures. Clone HH1/1784R antibody demonstrates uniform nuclear enrichment with minimal cytoplasmic signal. Actin filaments are labeled with phalloidin (red), providing cytoskeletal contrast to the chromatin-associated histone signal.



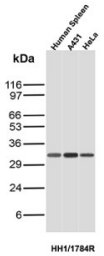
Histone H1 Antibody for FACS. Flow cytometry analysis of higher-order chromatin fiber-associated histone H1 expression in PFA-fixed human HeLa cells using Histone H1 Antibody. A clear rightward shift is observed in the antibody-stained population (blue) compared to the isotype control (red), indicating specific detection of linker histone H1. Clone HH1/1784R antibody demonstrates intracellular staining consistent with nuclear localization of histone H1 and its role in higher-order chromatin organization.



SDS-PAGE analysis of purified, BSA-free recombinant Histone H1 antibody (clone HH1/1784R) as confirmation of integrity and purity.



Western blot testing of human heart lysate with recombinant Histone H1 (clone HH1/1784R). Observed molecular weight ~22/30-33 kDa (unmodified/modified).



Histone H1 Antibody HH1/1784R in Human Spleen, A431 and HeLa WB. Western blot testing of clone HH1/1784R in human spleen tissue, A431 epidermoid carcinoma cell and HeLa cervical cancer cell lysates. A strong, discrete band is observed at approximately 32-33 kDa in all three samples, consistent with detection of linker histone H1. This Histone H1 Antibody supports studies of linker histone function in higher-order chromatin fiber formation and nuclear organization.

Description

Histone H1 is a linker histone that plays a central role in higher-order chromatin fiber formation and large-scale genome organization. Histone H1 Antibody detects H1 protein involved in folding nucleosome arrays into structured chromatin fibers, representing a key level of chromatin organization beyond individual nucleosomes. This positioning distinguishes higher-order chromatin folding from simpler chromatin condensation or nucleosome spacing mechanisms. 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 folding and genome organization. By binding to linker DNA, histone H1 promotes interactions between nucleosomes that enable chromatin to fold into higher-order structures. These structures represent an organized and hierarchical level of chromatin architecture.

Mechanistically, histone H1 stabilizes nucleosome arrays and facilitates their folding into structured chromatin fibers. This process allows large segments of DNA to be compacted while maintaining an organized chromatin architecture. Unlike simple compaction, higher-order chromatin folding involves coordinated interactions between nucleosomes to create defined chromatin structures.

Higher-order chromatin fiber formation is essential for efficient DNA packaging within the nucleus and contributes to the spatial organization of the genome. Histone H1 plays a key role in this process by regulating the arrangement of nucleosomes into structured chromatin domains.

Changes in histone H1 levels or distribution can alter chromatin folding and impact genome organization. This makes histone H1 an important regulator of chromatin architecture across different cellular states, including proliferation, differentiation, and stress responses.

The ability of histone H1 to mediate chromatin fiber formation links local nucleosome organization to global genome architecture, making it a critical factor in chromatin biology. Detection of H1 in this context provides insight into higher-order chromatin structure and genome organization.

A recombinant rabbit monoclonal antibody targeting histone H1 enables specific and consistent detection of linker histone involved in chromatin fiber formation, supporting studies of chromatin architecture, genome organization, and higher-order chromatin structure.

For additional information on linker histone H1 and a highly published monoclonal antibody, visit our Histone H1 Antibody AE-4 / Total Linker Histone H1 Chromatin Antibody page.

Application Notes

Optimal dilution of the Histone H1 Antibody / Higher-Order Chromatin Fiber Formation Antibody should be determined by the researcher.

1. 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

Recombinant full-length human protein was used as the immunogen for the rabbit monoclonal Histone H1 Antibody / Higher-Order Chromatin Fiber Formation Antibody.

Storage

Store the recombinant 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, chromatin fiber histone H1 antibody, higher order chromatin antibody

Copyright © NSJ Bioreagents. All rights reserved.