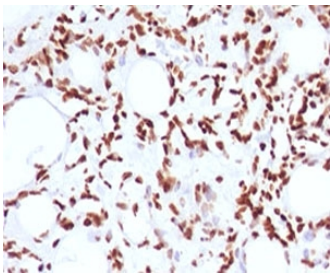
Histone H1 Antibody / Heterochromatin Linker Histone Antibody [clone OSHT-2] (V7140)

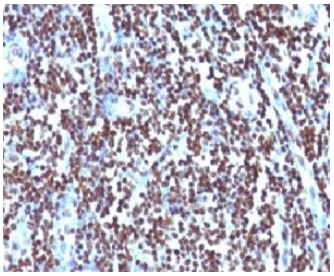
Catalog No.	Formulation	Size
V7140-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7140-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7140SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7140IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

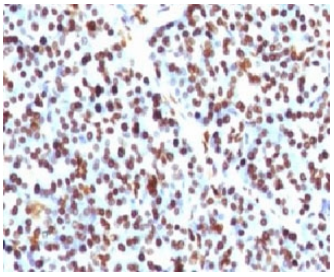
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	OSHT-2
Purity	Protein G affinity chromatography
UniProt	P07305
Localization	Nuclear
Applications	Immunofluorescence : 1-2ug/ml Immunohistochemistry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



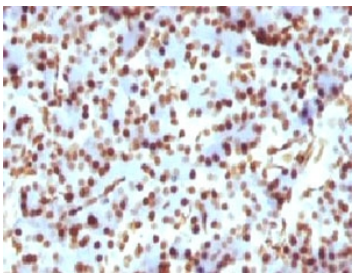
Histone H1 Antibody for IHC. Immunohistochemistry analysis of heterochromatin-associated histone H1 expression in FFPE human angiosarcoma tissue using Histone H1 Antibody. Nuclear HRP-DAB brown staining is observed in tumor cells, consistent with localization of linker histone H1 within condensed chromatin domains and its role in heterochromatin organization. Clone OSHT-2 antibody demonstrates strong nuclear compartmentalization with minimal cytoplasmic staining, highlighting chromatin-associated distribution in densely packed chromatin regions.



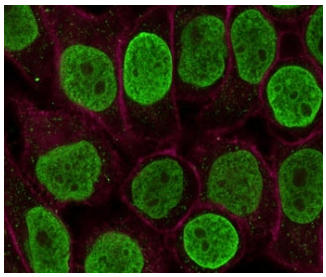
IHC testing of FFPE human tonsil and Histone H1 antibody (clone OSHT-2). Staining of formalin/paraffin tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC testing of FFPE human pancreas and Histone H1 antibody (clone OSHT-2). Staining of formalin/paraffin tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



IHC testing of FFPE rat pancreas and Histone H1 antibody (clone OSHT-2). Staining of formalin/paraffin tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



Histone H1 Antibody for IF. Immunofluorescence analysis of heterochromatin-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 condensed chromatin domains and its role in heterochromatin organization. Clone OSHT-2 antibody demonstrates nuclear enrichment with minimal cytoplasmic signal. Actin filaments are labeled with phalloidin (red), providing cytoskeletal contrast to the chromatin-associated histone signal.

Description

Histone H1 is a linker histone that is strongly associated with heterochromatin and densely packed chromatin regions, where it contributes to chromatin compaction and genome organization. Histone H1 Antibody detects H1 protein enriched in heterochromatin domains, providing a useful marker for studying condensed chromatin and structural genome organization. This heterochromatin-focused positioning distinguishes it from general H1 detection by emphasizing chromatin density and domain-specific organization. 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 investigate heterochromatin structure and chromatin compaction. Histone H1 binds to linker DNA and facilitates interactions between adjacent nucleosomes, promoting formation of tightly packed chromatin regions that are characteristic of heterochromatin.

Mechanistically, histone H1 enhances nucleosome-nucleosome interactions and stabilizes chromatin folding into compact domains. These interactions reduce DNA accessibility and contribute to the formation of structurally dense chromatin regions. This makes histone H1 a key determinant of chromatin density and a central regulator of higher-order chromatin organization within heterochromatin.

Heterochromatin-associated histone H1 plays an important role in maintaining genome stability and nuclear architecture. These condensed chromatin regions contribute to the structural organization of the nucleus and support proper genome function by maintaining stable chromatin domains.

Histone H1 enrichment in heterochromatin is dynamically regulated and can vary across cell types and chromatin states. Increased association of H1 is typically observed in regions of high chromatin density, making it a valuable marker for studying condensed chromatin domains and structural chromatin organization.

In addition to its structural role, histone H1 contributes to the spatial organization of chromatin within the nucleus, helping define chromatin domains and nuclear architecture. This makes it particularly relevant for studies examining large-scale genome organization and chromatin compartmentalization.

A mouse monoclonal antibody targeting histone H1 enables detection of linker histone associated with heterochromatin, supporting studies of chromatin compaction, genome organization, and nuclear structure.

Application Notes

Optimal dilution of the Histone H1 Antibody / Heterochromatin Linker Histone 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 Histone H1 Antibody / Heterochromatin Linker Histone 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, heterochromatin histone H1 antibody, condensed chromatin H1 antibody