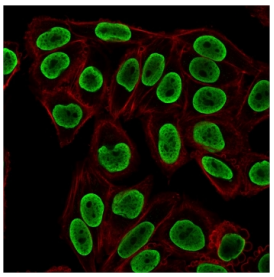
# Histone H1 Antibody for IF / Linker Histone H1 Immunofluorescence Antibody [clone rAE-4] (V7836)

| Catalog No. | Formulation | Size |
|---|---|---|
| V7836-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V7836-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V7836SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

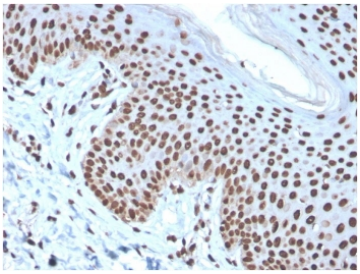
Recombinant MOUSE MONOCLONAL

**Bulk quote request**

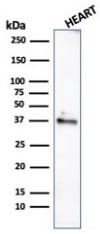
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Recombinant Mouse Monoclonal |
| **Isotype** | Mouse IgG2a, kappa |
| **Clone Name** | rAE-4 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P07305 |
| **Localization** | Nuclear |
| **Applications** | Flow Cytometry : 1-2ug/10^6 cells in 0.1ml<br>Immunofluorescence : 1-2ug/ml<br>Immunohistochemistry (FFPE) : 1-2ug/ml<br>Western Blot : 1-2ug/ml |
| **Limitations** | This recombinant Histone H1 antibody is available for research use only. |



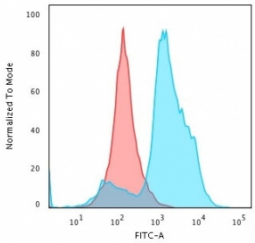
Histone H1 Antibody for IF. Immunofluorescence analysis of linker histone H1 expression in PFA-fixed human HeLa cells using Histone H1 Antibody (green). Strong nuclear staining is observed, consistent with localization of histone H1 within chromatin and its role in organizing linker DNA and higher-order chromatin structure. The staining pattern shows uniform nuclear distribution with minimal cytoplasmic signal, reflecting chromatin-associated localization across the nucleus. Clone rAE-4 antibody demonstrates clear nuclear signal suitable for chromatin imaging applications. Actin filaments are labeled with phalloidin (red), providing cytoskeletal contrast to the chromatin-associated histone signal.



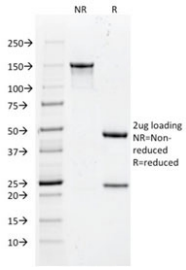
IHC staining of FFPE human skin basal cell carcinoma with recombinant Histone H1 antibody (clone rAE-4). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.




Western blot testing of human heart lysate with recombinant Histone H1 antibody (clone rAE-4). Predicted molecular weight ~20 kDa but can be observed at 27-33 kDa.




Flow cytometry testing of PFA-fixed human HeLa cells with recombinant Histone H1 antibody (clone rAE-4); Red=isotype control, Blue= recombinant Histone H1 antibody.




SDS-PAGE analysis of purified, BSA-free recombinant Histone H1 antibody (clone rAE-4) as confirmation of integrity and purity.

## Description

Histone H1 is a linker histone that localizes to chromatin and plays a central role in organizing DNA within the nucleus by stabilizing linker DNA and regulating higher-order chromatin structure. Histone H1 Antibody for IF enables direct visualization of linker histone distribution within intact cells, producing distinct nuclear staining patterns that reflect global chromatin organization. This immunofluorescence-focused positioning highlights histone H1 as a robust marker for nuclear chromatin imaging and structural analysis of chromatin architecture. 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 in immunofluorescence to assess nuclear organization and chromatin distribution. Because histone H1 binds to DNA between nucleosomes rather than within the nucleosome core, its staining pattern outlines the overall chromatin landscape of the nucleus. This results in a broad and continuous nuclear signal that differs from more localized nuclear markers, making histone H1 particularly useful for visualizing global chromatin organization.

Clone rAE-4 antibody is a recombinant mouse monoclonal antibody developed as the recombinant version of the well-established mouse AE-4 clone. While sharing the same clone designation, the recombinant format is engineered to improve lot-to-lot consistency and experimental reproducibility while preserving the binding characteristics associated with the original AE-4 antibody. This distinction is important for researchers working across multiple experiments or extended studies, where reproducibility of immunofluorescence signal is critical.

In immunofluorescence assays, histone H1 produces strong nuclear staining with minimal cytoplasmic background, enabling clear delineation of nuclear boundaries and chromatin distribution. The signal typically appears as uniform or finely textured nuclear fluorescence, reflecting the widespread presence of histone H1 across chromatin. This pattern provides a direct visual readout of chromatin organization and can be used to assess nuclear morphology and chromatin density at the single-cell level.

Mechanistically, histone H1 association with linker DNA allows visualization of chromatin organization across the entire nucleus. Unlike histone modifications or transcription factor markers that highlight specific genomic regions or nuclear substructures, histone H1 provides a global representation of chromatin distribution. This makes it particularly useful for studies focused on overall chromatin architecture rather than localized chromatin events.

Histone H1-based immunofluorescence is especially valuable in experiments examining changes in nuclear structure, including alterations in chromatin organization associated with cell cycle progression, differentiation, or cellular stress. Differences in staining intensity, distribution, or nuclear morphology can provide insight into chromatin reorganization under different biological conditions.

The use of a recombinant mouse monoclonal antibody such as clone rAE-4 enhances signal consistency and reduces variability in fluorescence-based assays, supporting reliable comparison across samples and experimental conditions. This is particularly important in imaging workflows where reproducibility of staining patterns is essential.

Histone H1 Antibody for IF provides a robust and reliable tool for visualizing linker histone distribution and chromatin organization, supporting high-resolution imaging studies of nuclear structure, chromatin architecture, and cell state-dependent changes in chromatin organization.

## Application Notes

Optimal dilution of the Histone H1 Antibody for IF / Linker Histone H1 Immunofluorescence Antibody should be determined by the researcher.

## Immunogen

Nuclei of human leukemia biopsy cells were used as the immunogen for this Histone H1 Antibody for IF / Linker Histone H1 Immunofluorescence 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, histone H1 IF antibody, chromatin imaging histone H1 antibody

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