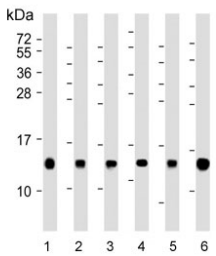
Histone H4 Antibody / Nucleosome Core Chromatin Marker Antibody (F55056)

Catalog No.	Formulation	Size
F55056-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F55056-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Predicted Reactivity	All species
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P62805
Applications	Western Blot : 1:2000
Limitations	This Histone H4 antibody is available for research use only.



Histone H4 Antibody for WB. Western blot analysis of nucleosome core histone H4 expression in whole cell lysates. Lane 1: human HL60 cells, Lane 2: mouse NIH 3T3 cells, Lane 3: human HeLa cells, Lane 4: human A431 cells, Lane 5: rat H-4-II-E cells, Lane 6: rat C6 cells. A band is detected at approximately 11 kDa, consistent with the predicted molecular weight of Histone H4 (HIST1H4). Consistent band detection across human, mouse, and rat samples reflects the highly conserved and ubiquitous expression of histone H4 as a core nucleosomal protein.

Description

Histone H4 (HIST1H4) is a core nucleosomal histone that serves as a central structural component of the nucleosome and functions as a key marker of chromatin core integrity. Histone H4 Antibody detects total H4 protein and is particularly useful for assessing nucleosome structure and chromatin organization at the core particle level. As part of the histone octamer, H4 plays a direct role in stabilizing DNA-histone interactions and maintaining chromatin architecture. This

antibody is part of our broader Histone H4 antibody collection, including acetylation, methylation, phosphorylation, and total H4 detection reagents for chromatin and epigenetics research.

Histone H4 antibody, also referred to as H4 antibody or HIST1H4 antibody in the literature, is widely used as a nucleosome marker in chromatin biology studies. Because histone H4 is present in every nucleosome, its detection reflects nucleosome density and chromatin structural integrity. This makes it especially valuable in experiments examining chromatin fragmentation, nucleosome occupancy, and chromatin extraction efficiency.

Within the nucleosome, histone H4 pairs with histone H3 to form a tetramer that serves as the central scaffold for DNA wrapping. This H3-H4 tetramer is essential for nucleosome formation and provides the foundation for chromatin organization. The stability of this core structure is critical for maintaining genome integrity and regulating DNA accessibility.

The N-terminal tail of histone H4 extends from the nucleosome and participates in interactions between neighboring nucleosomes, contributing to chromatin folding and higher-order chromatin structure. These interactions are essential for organizing chromatin into functional domains within the nucleus.

Because histone H4 is tightly associated with nucleosome structure, it is frequently used as a marker for chromatin integrity in biochemical and molecular assays. Changes in H4 signal can reflect alterations in nucleosome stability, chromatin fragmentation, or chromatin extraction conditions.

A rabbit polyclonal antibody targeting histone H4 enables reliable detection of nucleosome-associated H4 protein, supporting studies of chromatin structure, nucleosome organization, and DNA packaging.

Application Notes

Titration of the Histone H4 Antibody / Nucleosome Core Chromatin Marker Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Histone H4 Antibody / Nucleosome Core Chromatin Marker Antibody was produced from a rabbit immunized with a KLH conjugated synthetic peptide between 71-103 amino acids from the C-terminal region of human HIST1H4A.

Storage

Aliquot the Histone H4 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Histone H4 antibody, H4 antibody, HIST1H4 antibody, nucleosome core histone H4 antibody