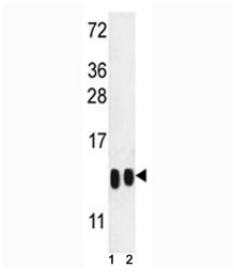
H4 Antibody / Histone H4 Total Protein Antibody (F49271)

Catalog No.	Formulation	Size
F49271-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F49271-0.08ML	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
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P62805
Applications	Western Blot : 1:1000
Limitations	This H4 antibody is available for research use only.



H4 Antibody / Histone H4 Total Protein Antibody for WB. H4 antibody western blot analysis in (1) human K562 and (2) mouse NIH3T3 lysate.

Description

Histone H4 (HIST1H4) is a highly conserved core nucleosomal histone that forms an essential component of chromatin and plays a central role in DNA packaging, nucleosome stability, and genome integrity. H4 Antibody detects total histone H4 protein independent of post-translational modification state, providing a direct and reliable measure of nucleosome content and chromatin abundance. This makes total H4 detection a foundational tool in chromatin biology and epigenetic research. 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.

H4 antibody, also referred to as Histone H4 antibody or HIST1H4 antibody in the literature, is widely used as a baseline reference for chromatin-associated protein levels. Because histone H4 is present in every nucleosome, detection of total H4 provides a consistent readout of chromatin content across samples. This is particularly important for normalization in experiments analyzing histone acetylation, methylation, or phosphorylation, where total histone levels must be accounted for to accurately interpret modification changes.

Structurally, histone H4 forms a tetramer with histone H3 that constitutes the central core of the nucleosome. This H3-H4 tetramer provides the primary scaffold around which DNA is wrapped, ensuring stable chromatin organization. The N-terminal tail of histone H4 extends outward from the nucleosome and participates in inter-nucleosomal interactions that influence chromatin compaction and higher-order chromatin structure. These features make histone H4 indispensable for maintaining genome organization.

Histone H4 is ubiquitously expressed across all eukaryotic cell types and is tightly regulated during the cell cycle, particularly during S phase when newly synthesized histones are required for chromatin assembly following DNA replication. Because of its abundance, stability, and uniform presence in nucleosomes, histone H4 serves as a reliable marker for chromatin content in both proliferating and differentiated cells.

Although histone H4 is subject to numerous post-translational modifications that regulate chromatin function, detection of total H4 provides a modification-independent assessment of chromatin composition. This allows researchers to distinguish between changes in histone abundance and changes in modification state, improving the accuracy of epigenetic analyses.

A rabbit polyclonal antibody targeting histone H4 enables robust and broad detection of total H4 protein across experimental systems, supporting studies of chromatin structure, nucleosome organization, and genome stability.

Chromatin organization and epigenetic pathway studies may also benefit from our Histone H4 antibody targeting core nucleosome structure and nuclear chromatin biology.

Application Notes

Titration of the H4 Antibody / Histone H4 Total Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1-30 from the human protein was used as the immunogen for this H4 Antibody / Histone H4 Total Protein Antibody.

Storage

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

Alternate Names

H4 antibody, Histone H4 antibody, HIST1H4 antibody, total histone H4 antibody