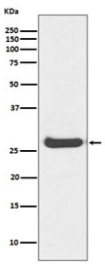
Histone H1.0 Antibody / H1F0 Differentiation Linker Histone Antibody [clone HAG-8] (RQ5175)

Catalog No.	Formulation	Size
RQ5175	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	HAG-8
Purity	Affinity purified
UniProt	P07305
Applications	Western blot: 1:1000-1:2000
Limitations	This Histone H1.0 antibody is available for research use only.



Histone H1.0 Antibody for WB. Western blot analysis of histone H1.0 expression in human kidney tissue lysate. A band is detected at approximately 25-30 kDa, compared to the predicted molecular weight of Histone H1.0 (H1F0) at approximately 20 kDa. The higher apparent molecular weight is consistent with post-translational modifications such as phosphorylation, which are known to alter electrophoretic mobility of linker histone H1 variants and are associated with chromatin stabilization in differentiated cells.

Description

Histone H1.0 (H1F0) is a differentiation-associated linker histone variant that accumulates in cells undergoing terminal differentiation and is associated with stable chromatin organization. Histone H1.0 Antibody detects the H1F0 isoform, distinguishing it from other histone H1 variants by its enrichment in differentiated cells and its role in maintaining long-term chromatin structure. This positioning highlights histone H1.0 as a marker of stable chromatin states rather than dynamic chromatin remodeling. 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 H1.0 antibody, also referred to as H1F0 antibody or H1.0 histone antibody in the literature, is widely used to study chromatin organization in differentiated cells. Unlike other H1 variants that are more dynamically regulated, H1.0 is associated with more stable chromatin configurations and is often enriched in cells that have exited the cell cycle. This makes it particularly relevant for studies of terminal differentiation and long-term chromatin stability.

Mechanistically, histone H1.0 binds to linker DNA and contributes to chromatin compaction and structural stabilization. Its presence supports the formation of stable chromatin domains that are less prone to dynamic rearrangement. This distinguishes H1.0 from other histone H1 variants that are more actively involved in chromatin remodeling processes.

During cellular differentiation, increased expression of histone H1.0 reflects a shift toward chromatin states that support stable genome organization. This accumulation contributes to the establishment of chromatin environments that maintain cellular identity and reduce chromatin plasticity. As a result, H1.0 serves as an indicator of chromatin maturation and long-term structural stability.

Histone H1.0-mediated chromatin stabilization plays an important role in maintaining genome organization in differentiated cells. By reinforcing chromatin structure, H1.0 helps preserve specialized cellular functions and supports stable genome architecture over time.

The distinction between H1.0 and other H1 variants highlights the functional diversity within the histone H1 family. While other variants may contribute to dynamic chromatin regulation, H1.0 is more closely associated with structural maintenance and chromatin stability in differentiated cells.

Detection of histone H1.0 provides valuable insight into chromatin states associated with differentiation and stable genome organization, complementing studies of more dynamic linker histone variants.

A recombinant rabbit monoclonal antibody such as clone HAG-8 enables specific detection of H1F0, supporting studies of chromatin organization, cellular differentiation, and stable chromatin architecture.

Application Notes

Optimal dilution of the Histone H1.0 Antibody / H1F0 Differentiation Linker Histone Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Histone H1.0 / H1F0 was used as the immunogen for the Histone H1.0 Antibody / H1F0 Differentiation Linker Histone Antibody.

Storage

Store the Histone H1.0 antibody at -20oC.

Alternate Names

Histone H1.0 antibody, H1F0 antibody, H1.0 histone antibody, differentiation histone H1.0 antibody

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