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Histone H1.2 Antibody

Rabbit mAb
Catalog # AP91733

Product Information

Application	WB, IHC, IF, ICC, IP, IHF
Primary Accession	P16403
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	H1.a; H1F2; H1s-1; HIST1H1C; Histone H1.2; Histone H1c; Histone H1d; Histone H1s-1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	21365

Additional Information

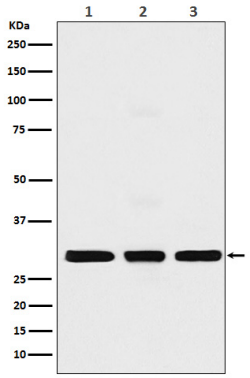
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 ChIP
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Histone H1.2
Description	Histones H1 are necessary for the condensation of nucleosome chains into higher order structures.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	H1-2 (HGNC:4716)
Function	Histone H1 protein binds to linker DNA between nucleosomes forming the macromolecular structure known as the chromatin fiber (PubMed:26581166, PubMed:38530350). Histone H1-2 is required for the condensation of nucleosome chains into higher-order structured fibers (PubMed:38530350). Compared to other histone H1 variants, H1-2 plays an essential role in nucleosome condensation: its absence leads to global chromatin decompaction, which is not observed when depleting other histone H1 variants (PubMed:38530350). Histone H1-2 also acts as a histone reader: specifically recognizes and binds histone H3 trimethylated at 'lys-27' (H3K27me3) (PubMed:26581166). Histones H1 also promote formation of the H3K27me3 mark by the PRC2/EED-EZH2 complex, possibly by facilitating restoration of H3K27me3 post- replication (PubMed:37429872, PubMed:40516528). Together with histone H1-3, histone H1-2 acts as a regulator of splicing, most specifically exon skipping and intron retention events: histone H1-2 has a high affinity for exons and regulates splicing by affecting RNA polymerase II (RNAPII) elongation (PubMed:37922872). Also

	acts as a regulator of individual gene transcription through chromatin remodeling, nucleosome spacing and DNA methylation (PubMed:38530350).
Cellular Location	Nucleus. Nucleus, nucleolus Chromosome. Note=Enriched at the nuclear periphery and colocalizes with compacted DNA (heterochromatin) (PubMed:26581166, PubMed:38530350). Enriched within lamina-associated domains (PubMed:38530350).

Images



Western blot analysis of Histone H1.2 expression in (1) MCF7 cell lysate (2) NIH/3T3 cell lysate; (3) C6 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.