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Anti-Histone H1.2 Monoclonal Antibody

Catalog # ABO14633

Product Information

Application	WB, IHC, IF, ICC
Primary Accession	P16403
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Histone H1.2 Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	3006
Other Names	Histone H1.2, Histone H1c, Histone H1d, Histone H1s-1, H1-2 (HGNC:4716)
Calculated MW	21365
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: AEDF-8
Immunogen	A synthesized peptide derived from human Histone H1.2
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

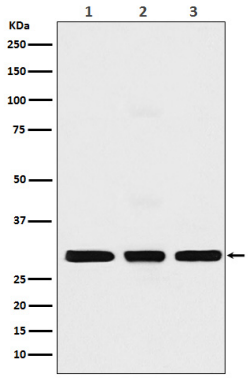
Name	H1-2 (HGNC:4716)
Function	Histone H1 protein binds to linker DNA between nucleosomes forming the macromolecular structure known as the chromatin fiber (PubMed:26581166, PubMed:38530350). Histone H1-2 is required for the condensation of nucleosome chains into higher-order structured fibers (PubMed:38530350).

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'.