

Anti-macroH2A.1 H2AFY Monoclonal Antibody

Catalog # ABO14536

Product Information

Application	WB, IHC, IF, ICC
Primary Accession	O75367
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-macroH2A.1 H2AFY Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	9555
Other Names	Core histone macro-H2A.1, Histone macroH2A1, mH2A1, Histone H2A.y, H2A/y, Medulloblastoma antigen MU-MB-50.205, MACROH2A1 (HGNC:4740)
Calculated MW	39184
Application Details	WB 1:1000-1:5000 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 Immunogen	Clone: ADDI-8 A synthesized peptide derived from human macroH2A.1 Involved in stable X chromosome inactivation. Inhibits the binding of transcription factors and interferes with the activity of remodeling SWI/SNF complexes. Inhibits histone acetylation by EP300 and recruits class I HDACs, which induces an hypoacetylated state of chromatin.
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	MACROH2A1 (HGNC:4740)
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Function

Variant histone H2A which replaces conventional H2A in a subset of nucleosomes where it represses transcription (PubMed:[12718888](#), PubMed:[15621527](#), PubMed:[16428466](#)). Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template (PubMed:[15897469](#)). Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability (PubMed:[15897469](#)). DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Involved in stable X chromosome inactivation (PubMed:[15897469](#)). Inhibits the binding of transcription factors, including NF-kappa-B, and interferes with the activity of remodeling SWI/SNF complexes (PubMed:[12718888](#), PubMed:[16428466](#)). Inhibits histone acetylation by EP300 and recruits class I HDACs, which induces a hypoacetylated state of chromatin (PubMed:[16107708](#), PubMed:[16428466](#)).

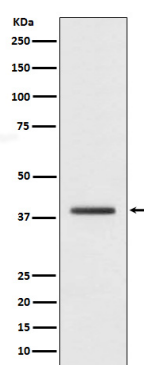
Cellular Location

Nucleus. Chromosome. Note=Enriched in inactive X chromosome chromatin and in senescence-associated heterochromatin (PubMed:[15621527](#), PubMed:[15897469](#), PubMed:[9634239](#)). Recruited to DNA damage sites in an APLF-dependent manner (PubMed:[21211722](#), PubMed:[29905837](#)).

Tissue Location

Widely expressed..

Images



Western blot analysis of macroH2A.1 expression in HepG2 cell lysate.

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