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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

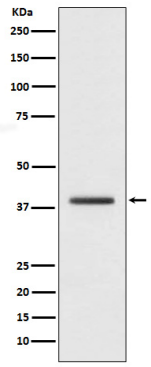
Gene ID	9555
Other Names	Core histone macro-H2A.1, Histone macroH2A1, mH2A1, Histone H2A.y, H2A/y, Medulloblastoma antigen MU-MB-50.205, MACROH2A1 (HGNC:4740)
Calculated MW	39184
Application Details	WB 1:1000-1:5000 IHC 1:50-1:200 ICC/IF 1:50-1:200
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ADDI-8
Immunogen	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)

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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