

KD-Validated Anti-MacroH2A.1 Histone Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1105

Product Information

Application	WB, FC
Primary Accession	O75367
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB485
Calculated MW	39184
Gene Name	MACROH2A1
Aliases	MACROH2A1; MacroH2A.1 Histone; H2AFY; Medulloblastoma Antigen MU-MB-50.205; H2A Histone Family Member Y; Core Histone Macro-H2A.1; Histone MacroH2A1; Histone H2A.Y; MacroH2A1.2; H2A/Y; MH2A1; H2A Histone Family, Member Y; Histone MacroH2A1.1; Histone MacroH2A1.2; MACROH2A1.1; MACROH2A1.2; H2AF12M; H2A.Y
Immunogen	A synthesized peptide derived from human macroH2A.1

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)

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..

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