

Anti-macroH2A.1 H2AFY Monoclonal Antibody
Catalog # ABO14536**Specification****Anti-macroH2A.1 H2AFY Monoclonal Antibody - 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.

Anti-macroH2A.1 H2AFY Monoclonal Antibody - 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 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=4740)
HGNC:4740

Application Details

WB 1:1000-1:5000
IHC 1:50-1:200
ICC/IF 1:50-1:200

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.

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.

Anti-macroH2A.1 H2AFY Monoclonal Antibody - 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](http://www.uniprot.org/citations/12718888), PubMed:[15621527](http://www.uniprot.org/citations/15621527), PubMed:[16428466](http://www.uniprot.org/citations/16428466)). Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template (PubMed:[15897469](http://www.uniprot.org/citations/15897469)). Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability (PubMed:[15897469](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15897469)). Inhibits the binding of transcription factors, including NF-kappa-B, and interferes with the activity of remodeling SWI/SNF complexes (PubMed:[12718888](http://www.uniprot.org/citations/12718888), PubMed:[16428466](http://www.uniprot.org/citations/16428466)). Inhibits histone acetylation by EP300 and recruits class I HDACs, which induces a hypoacetylated state of chromatin (PubMed:[16107708](http://www.uniprot.org/citations/16107708), PubMed:[16428466](http://www.uniprot.org/citations/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

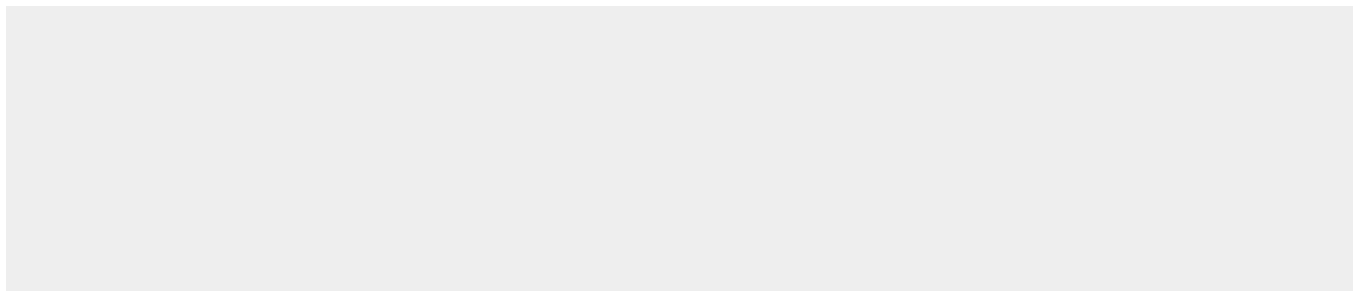
Widely expressed..

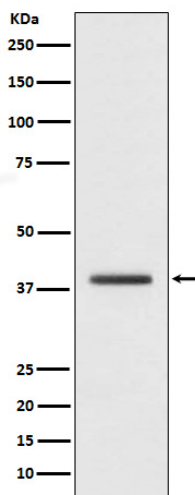
Anti-macroH2A.1 H2AFY Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-macroH2A.1 H2AFY Monoclonal Antibody - Images





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