

Product datasheet

Recombinant Human mH2A1 protein ab134847

Description

Product name	Recombinant Human mH2A1 protein	
Purity	> 90 % SDS-PAGE. ab134847 was expressed in E. coli as inclusion bodies, refolded, chromatographically purified and sterile-filtered.	
Expression system	Escherichia coli	
Accession	O75367	
Protein length	Full length protein	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	<p>MASMTGGQQMGRGHHHHHHGNLYFQGGEFSSRGGKKK STKTSRSAKAGVI FPVGRMLRYIKKGHPKYRIGVGAPVYMAAVLEYLTAEILELA GNAARDNK KGRVTPRHILLAVANDEELNQLLKGVTIASGGVLPNIHPELL AKKRGSKG KLEAITPPPAKKAKSPSQKKPVSKKAGGKKGARKSKKKQ GEVSKAASAD STTEGTPADGFTVLSTKSLFLGQKLNLIHSEISNLAGEFE AIINPTNAD IDLKDDLGNLTKKGGKEFVEAVLELRKKNNGPLEVAGAAV SAGHGLPAKF VIHCNSPVWGADKCEELLEKTVMKCLALADDKCLKSIAFP SIGSGRNGFP KQTAAQLILKAISSYFVSTMSSSIKTVYFVLFDSSESIGIVQE MAKLDAN</p>	
Predicted molecular weight	43 kDa including tags	
Amino acids	2 to 372	
Tags	His-T7 tag N-Terminus	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab134847** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid
Additional notes	Previously labelled as macroH2A.1.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. pH: 8.00 Constituent: 0.32% Tris HCl Buffer also contains a proprietary formulation of NaCl, KCl, EDTA, Arginine, DTT and Glycerol.
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General Info

Function	Variant histone H2A which replaces conventional H2A in a subset of nucleosomes where it represses transcription. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. 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. 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. In addition, isoform 1, but not isoform 2, binds ADP-ribose and O-acetyl-ADP-ribose, and may be involved in ADP-ribose-mediated chromatin modulation.
Tissue specificity	Ubiquitous.
Sequence similarities	Contains 1 histone H2A domain. Contains 1 Macro domain.
Post-translational modifications	Monoubiquitinated at either Lys-116 or Lys-117. May also be polyubiquitinated. Ubiquitination is mediated by the CUL3/SPOP E3 complex and does not promote proteasomal degradation. Instead, it is required for enrichment in inactive X chromosome chromatin.
Cellular localization	Nucleus. Chromosome. Enriched in inactive X chromosome chromatin and in senescence-associated heterochromatin.

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