HIST2H2AA4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HIST2H2AA4, Polyclonal Antibody
Full Product Name	HIST2H2AA4, CT (HIST2H2AA3, H2AFO, HIST2H2AA, Histone H2A type 2-A, Histone H2A.2, Histone H2A/o) (MaxLight 490)
Product Gene Name	anti-HIST2H2AA4 antibody
Product Synonym Gene Name	HIST2H2AA3
Product Synonym Names	HIST2H2AA3; H2AFO; HIST2H2AA; Histone H2A type 2-A; Histone H2A.2; Histone H2A/o
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	14,095 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (149813785..149814318, complement). Location: 1q21.2
OMIM	142720
3D Structure	ModBase 3D Structure for Q6FI13
Immunogen	HIST2H2AA4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 101-130 amino acids from the C-terminal region of human HIST2H2AA4.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-HIST2H2AA4 antibody	Antibodies; Histones
Applications Tested/Suitable for anti-HIST2H2AA4 antibody	Western Blot (WB), FLISA
Application Notes for anti-HIST2H2AA4 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.

Related Product Information for anti-HIST2H2AA4 antibody	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene is intronless and encodes a member of the histone H2A family. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in a histone cluster on chromosome 1. This gene is one of four histone genes in the cluster that are duplicated; this record represents the telomeric copy.
Product References and Citations for anti-HIST2H2AA4 antibody	Braastad, C.D., et al. Gene 342(1):35-40(2004). Marzluff, W.F., et al. Genomics 80(5):487-498(2002). Mannironi, C., et al. DNA Cell Biol. 13(2):161-170(1994) Allen, B.S., et al. Genomics 10(2):486-488(1991).
Other Notes	Small volumes of anti-HIST2H2AA4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HIST2H2AA4 purchase	MBS6306863 is an antibody targeting HIST2H2AA4. Also known as HIST2H2AA4, CT (HIST2H2AA3, H2AFO, HIST2H2AA, Histone H2A type 2-A, Histone H2A.2, Histone H2A/o) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HIST2H2AA4. It may not necessarily be applicable to this product.

NCBI GI #	4504251
NCBI GeneID	8337
NCBI Accession #	NP_003507.1
NCBI Related Accession #	NP_001035807.1
UniProt Primary Accession #	Q6FI13
UniProt Secondary Accession #	P20670; B2R5F0
UniProt Related Accession #	Q6FI13
GenBank Nucleotide #	NM_003516.2
NCBI Official Full Name	histone H2A type 2-A
NCBI Official Synonym Full Names	histone cluster 2, H2aa3
NCBI Official Symbol	HIST2H2AA3
NCBI Official Synonym Symbols	H2A; H2A.2; H2A/O; H2A/q; H2AFO; H2a-615; HIST2H2AA
UniProt Protein Name	Histone H2A type 2-A
UniProt Synonym Protein Names	Histone H2A.2; Histone H2A/o
UniProt Gene Name	HIST2H2AA3
UniProt Synonym Gene Names	H2AFO; HIST2H2AA
UniProt Entry Name	H2A2A_HUMAN
NCBI Protein Information	histone H2A type 2-A; histone 2, H2aa3; H2A histone family, member O
NCBI Summary for HIST2H2AA4	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene is intronless and encodes a member of the histone H2A family. Transcripts from this gene lack polyA tails but instead contain a palindromic termination element. This gene is found in a histone cluster on chromosome 1. This gene is one of four histone genes in the cluster that are duplicated; this record represents the centromeric copy. [provided by RefSeq, Jul 2008]

UniProt Comments for HIST2H2AA4	H2AO: Core component of nucleosome. 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. The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Belongs to the histone H2A family. Chromosomal Location of Human Ortholog: 1q21.2 Cellular Component: nucleosome; nucleus Molecular Function: DNA binding; protein heterodimerization activity
Research Articles on HIST2H2AA4	**1.** Ubiquitin-dependent signaling during the DNA damage response (DDR) to double-strand breaks is initiated by two E3 ligases, RNF8 and RNF168, targeting histone H2A and H2AX. Study shows that ubiquitin chains per se are insufficient for signaling, but RNF168 target ubiquitination is required for DDR damage.
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