Histone H3 (H3) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Histone H3, Polyclonal Antibody
Full Product Name	Histone H3 (Phospho-Thr11) Antibody
Product Gene Name	anti-H3 antibody
Product Synonym Names	H3/a H3/m H3.3A; H3/c H3/o H3F3B; H3/d; H3/f; H3/h
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi
Specificity	The antibody detects endogenous level of Histone H3 only when phosphorylated at threonine 11.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	15,404 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (26020718..26021186). Location: 6p22.1
OMIM	602810
3D Structure	ModBase 3D Structure for P68431
Immunogen	Peptide sequence around phosphorylation site of threonine 11 (K-S-T (p)-G-G) derived from Human Histone H3.
Product Categories/Family for anti-H3 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-H3 antibody	Western Blot (WB)
Application Notes for anti-H3 antibody	WB: 1:500~1:1000
Related Product Information for anti-H3 antibody	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.
Product References and Citations for anti-H3 antibody	Preuss U., Landsberg G., Scheidtmann K.H. Nucleic Acids Res. 31:878-885 (2003) Shimada M., Niida H., Zineldeen D.H., Tagami H., Tanaka M., Saito H., Nakanishi M.Cell 132:221-232 (2008) Metzger E., Yin N., Wissmann M., Kunowska N., Fischer K., Friedrichs N., Patnaik D., Higgins J.M., Potier N., Scheidtmann K.H., Buettner R., Schule R.Nat. Cell Biol. 10:53-60 (2008)
Other Notes	Small volumes of anti-H3 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 H3 purchase	MBS8585015 is an antibody targeting H3. Also known as Histone H3 (Phospho-Thr11) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for H3. It may not necessarily be applicable to this product.

NCBI GI #	4504281
NCBI GeneID	8350
NCBI Accession #	NP_003520.1
UniProt Primary Accession #	P68431
UniProt Secondary Accession #	P02295; P02296; P16106; Q6ISV8; Q6NWP8; Q6NWP9; Q6NXU4; Q71DJ3; Q93081; A0PJT7; A5PLR1
UniProt Related Accession #	P68431
GenBank Nucleotide #	NM_003529.2
NCBI Official Full Name	histone H3.1
NCBI Official Synonym Full Names	histone cluster 1, H3a
NCBI Official Symbol	HIST1H3A
NCBI Official Synonym Symbols	H3/A; H3FA
UniProt Protein Name	Histone H3.1
UniProt Synonym Protein Names	Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/i; Histone H3/j; Histone H3/k; Histone H3/l
Protein Family	Tyrosine phosphatase
UniProt Gene Name	HIST1H3A
UniProt Synonym Gene Names	H3FA
UniProt Entry Name	H31_HUMAN
NCBI Protein Information	histone H3.1; histone H3/a; histone 1, H3a; H3 histone family, member A
NCBI Summary for H3	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped around a nucleosome, an octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronless and encodes a member of the histone H3 family. Transcripts from this gene lack polyA tails; instead, they contain a palindromic termination element. This gene is found in the large histone gene cluster on chromosome 6p22-p21.3. [provided by RefSeq, Jul 2008]

UniProt Comments for H3	H3: 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 H3 family. Protein type: DNA-binding Chromosomal Location of Human Ortholog: 6p22.2 Cellular Component: nucleoplasm; nuclear chromosome; protein complex; membrane; extracellular region; nucleosome; nucleus Molecular Function: protein binding; DNA binding; histone binding; protein heterodimerization activity Biological Process: chromatin silencing at rDNA; nucleosome assembly; establishment and/or maintenance of chromatin architecture; negative regulation of gene expression, epigenetic; protein heterotetramerization; gene expression; blood coagulation; regulation of gene expression, epigenetic; DNA replication-dependent nucleosome assembly; DNA methylation on cytosine
Research Articles on H3	**1.** The authors report that de novo CENP-A assembly and kinetochore formation on human centromeric alphoid DNA arrays is regulated by a histone H3K9 acetyl/methyl balance.
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