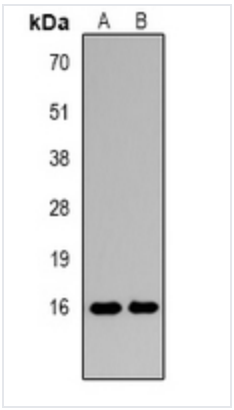
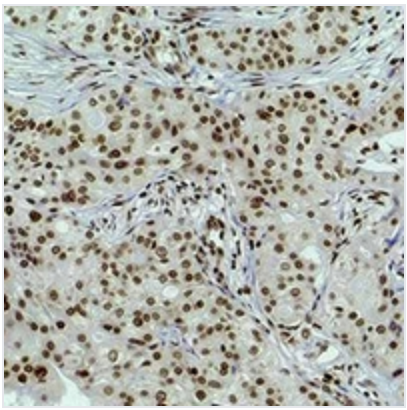
Histone H3 (H3) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Histone H3, Polyclonal Antibody
Full Product Name	Rabbit anti-Histone H3 (DiMethyl K4) Antibody
Product Gene Name	anti-H3 antibody
Product Synonym Names	HIST1H3A; H3FA; HIST1H3B; H3FL; HIST1H3C; H3FC; HIST1H3D; H3FB; HIST1H3E; H3FD; HIST1H3F; H3FI; HIST1H3G; H3FH; HIST1H3H; H3FK; HIST1H3I; H3FF; HIST1H3J; H3FJ; Histone H3.1; 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; HIST2H3A; HIST2H3C; H3F2; H3FM; HIST2H3D; Histone H3.2; Histone H3/m; Histone H3/o; H3F3A; H3.3A; H3F3; PP781; H3F3B; H3.3B; Histone H3.3
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated 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	KLH-conjugated synthetic peptide encompassing a sequence of human Histone H3. The exact sequence is proprietary.
Product Categories/Family for anti-H3 antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-H3 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-H3 antibody	WB: 1:1000-1:2000 IHC: 1:200-1:500
Related Product Information for anti-H3 antibody	MBS4510005 is an antibody targeting H3. Also known as Rabbit anti-Histone H3 (DiMethyl K4) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
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.



Western Blot (WB) of anti-H3 antibody
Western blot analysis of Histone H3 (DiMethyl K4) expression in Hela (A), NIH3T3 (B), Raw264.7 (C) whole cell lysates.



Immunohistochemistry (IHC) of anti-H3 antibody
Immunohistochemical analysis of Histone H3 (DiMethyl K4) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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 #	Q71DI3; P84243; P68433; P84228; P84244; Q6LED0; P84245
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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