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Immunotag™ Histone H3 Polyclonal Antibody

Antibody Specification

Catalog No.	ITT5434
Product Description	Immunotag™ Histone H3 Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Flu
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cann return.
Target Protein	Histone H3
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from human Histone H3 around the non-methylation site of K27
Specificity	Histone H3 Polyclonal Antibody detects endogenous levels of Histone H3 protein only when non-methyl
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-spec
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	HIST1H3A/HIST1H3/HIST1H3C/HIST1H3D/HIST1H3E/HIST1H3F/HIST1H3G/HIST1H3H/HIST1H3I/HIST1H3J
Accession No.	P68431/Q71DI3/P84243/Q6NXT2 Q6LED0/P84245
Alternate Names	HIST1H3A; H3FA; HIST1H3B; H3FL; HIST1H3C; H3FC; HIST1H3D; H3FB; HIST1H3E; H3FD; HIST1H3F; H3 H3FF; HIST1H3J; H3FJ; Histone H3.1;Histone H3.1; Histone H3.2; Histone H3/m; Histone H3/o; H3F3A; H H3F3C; Histone H3.3C; Histone H3.5

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Description	histone cluster 1 H3 family member a(HIST1H3A) Homo sapiens Histones are basic nuclear proteins tha the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacte with the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronl that is a member of the histone H3 family. Transcripts from this gene lack polyA tails; instead, they cor found in the large histone gene cluster on chromosome 6p22-p21.3. [provided by RefSeq, Aug 2015],
Cell Pathway/ Category	Systemic lupus erythematosus,
Protein Expression	Blood,Epithelium,Kidney,Lung,Ovary,Spleen,Uterus,
Subcellular Localization	nuclear chromosome,nuclear chromosome, telomeric region,nucleosome,nuclear nucleosome,extracell junction,membrane,protein complex,extracellular exosome,

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Protein Function	caution:Was originally (PubMed:2587222) thought to originate from mouse.,developmental stage:Expre decreases as cell division slows down during the process of differentiation.,function:Core component of into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a histones, also called histone code, and nucleosome remodeling.,mass spectrometry:Monoisotopic with PubMed:16457589,miscellaneous:This histone is only present in mammals and is enriched in acetylatio (H3K9me2).,PTM:Acetylation is generally linked to gene activation. Acetylation on Lys-10 (H3K9ac) imp on Lys-19 (H3K18ac) and Lys-24 (H3K24ac) favors methylation at Arg-18 (H3R17me).,PTM:Asymmetric linked to gene activation. Symmetric dimethylation at Arg-9 (H3R8sme2) by PRMT5 is linked to gene re (H3R2me2a) by PRMT6 is linked to gene repression and is mutually exclusive with H3 Lys-5 methylatio at the 3' of genes regardless of their transcription state and is enriched on inactive promoters, while it Arg-9 (H3R8ci) and/or Arg-18 (H3R17ci) by PADI4 impairs methylation and represses transcription.,PTM entry.,PTM:Methylation at Lys-5 (H3K4me), Lys-37 (H3K36me) and Lys-80 (H3K79me) are linked to gen facilitates subsequent acetylation of H3 and H4. Methylation at Lys-80 (H3K79me) is associated with D specific target for TP53BP1. Methylation at Lys-10 (H3K9me) and Lys-28 (H3K27me) are linked to gene specific target for HP1 proteins (CBX1, CBX3 and CBX5) and prevents subsequent phosphorylation at S Methylation at Lys-5 (H3K4me) and Lys-80 (H3K79me) require preliminary monoubiquitination of H2B a 28 (H3K27me) are enriched in inactive X chromosome chromatin.,PTM:Monoubiquitination of Lys-120 b tag for epigenetic transcriptional repression and participates in X chromosome inactivation of female m imprinted and random X inactivation. Ubiquitinated H2A is enriched in inactive X chromosome chromat methylation of 'Lys-27' of histone H3. Monoubiquitination of Lys-120 by RNF2/RING2 can also be induce Following DNA double-strand breaks (DSBs), it is ubiquitinated through 'Lys-63' linkage of ubiquitin moi RNF8 and RNF168, leading to the recruitment of repair proteins to sites of DNA damage. Monoubiquitin ubiquitination are distinct events.,PTM:Phosphorylated at Thr-4 (H3T3ph) by GSG2/haspin during proph centromeres, specifically phosphorylated at Thr-12 (H3T11ph) from prophase to early anaphase, proba 11 (H3S10ph) by AURKB is crucial for chromosome condensation and cell-cycle progression during mito 11 (H3S10ph) by RPS6KA4 and RPS6KA5 is important during interphase because it enables the transcri mitogens, stress, growth factors or UV irradiation and result in the activation of genes, such as c-fos an gene activation, prevents methylation at Lys-10 (H3K9me) but facilitates acetylation of H3 and H4. Pho mediates the dissociation of HP1 proteins (CBX1, CBX3 and CBX5) from heterochromatin. Phosphorylat regulatory mechanism for neoplastic cell transformation. Phosphorylated at Ser-29 (H3S28ph) by MLTK upon ultraviolet B irradiation.,PTM:Phosphorylated at Thr-4 (H3T3ph) by GSG2/haspin during prophase centromeres, specifically phosphorylated at Thr-12 (H3T11ph) from prophase to early anaphase, proba by AURKB is crucial for chromosome condensation and cell-cycle progression during mitosis and meios by RPS6KA4 and RPS6KA5 is important during interphase because it enables the transcription of genes growth factors or UV irradiation and result in the activation of genes, such as c-fos and c-jun. Phosphor activation, prevents methylation at Lys-10 (H3K9me) but facilitates acetylation of H3 and H4. Phosphor dissociation of HP1 proteins (CBX1, CBX3 and CBX5) from heterochromatin. Phosphorylation at Ser-11 mechanism for neoplastic cell transformation. Phosphorylated at Ser-29 by MLTK isoform 1, RPS6KA5 o irradiation.,PTM:Phosphorylation on Ser-2 is enhanced during mitosis. Phosphorylation on Ser-2 by RPS Acetylation of H3 inhibits Ser-2 phosphorylation by RPS6KA5/MSK1.,PTM:Symmetric dimethylation on A crucial role in the germ-cell lineage.,PTM:The chromatin-associated form is phosphorylated on Thr-121 RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones proteins.,similarity:Belongs to the histone H2A family.,similarity:Belongs to the histone H3 family.,subu two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2 147 bp of DNA.,subunit:The nucleosome is a histone octamer containing two molecules each of H2A, H heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Dur interacts with the histone H3-H4 heterodimer.,
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