G-Biosciences Image not found or type unknown

Immunotag™ Histone H3 Polyclonal Antibody

Antibody Specification

Catalog No.	ITT2166
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 Fluo
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cann eligible for return.
Target Protein	Histone H3
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in o
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from Histone H3, at AA range: 1-80
Specificity	Histone H3 Polyclonal Antibody detects endogenous levels of Histone H3 protein.
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/HIST1H3B/HIST1H3C/HIST1H3D/HIST1H3E/HIST1H3F/HIST1H3G/HIST1H3H/HIST1H3I/HIST1H3
Accession No.	P68431/Q71DI3/P84243 Q6LED0/P84245
Alternate Names	HIST1H3A; H3FA; HIST1H3B; H3FL; HIST1H3C; H3FC; HIST1H3D; H3FB; HIST1H3E; H3FD; HIST1H3F; H3 HIST1H3I; H3FF; HIST1H3J; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d;

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Description	histone cluster 1 H3 family member a(HIST1H3A) Homo sapiens Histones are basic nuclear proteins tha of the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrappe composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is furt linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. T replication-dependent histone that is a member of the histone H3 family. Transcripts from this gene lac palindromic termination element. This gene is found in the large histone gene cluster on chromosome
Cell Pathway/ Category	Protein_Acetylation
Protein Expression	Blood,Epithelium,Kidney,Lung,Ovary,Spleen,Uterus,
Subcellular Localization	nuclear chromosome,nuclear chromosome, telomeric region,nucleosome,nuclear nucleosome,extracell adherens 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 DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a temp transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is re modifications of histones, also called histone code, and nucleosome remodeling.,mass spectrometry:M 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 Acetylation on Lys-19 (H3K18ac) and Lys-24 (H3K24ac) favors methylation at Arg-18 (H3R17me).,PTM: (H3R17me2a) by CARM1 is linked to gene activation. Symmetric dimethylation at Arg-9 (H3R8sme2) by Asymmetric dimethylation at Arg-3 (H3R2me2a) by PRMT6 is linked to gene repression and is mutually (H3K4me2 and H3K4me3). H3R2me2a is present at the 3' of genes regardless of their transcription sta it is absent on active promoters.,PTM:Citrullination at Arg-9 (H3R8ci) and/or Arg-18 (H3R17ci) by PADI4 transcription.,PTM:Deiminated on Arg-4 in granulocytes upon calcium entry.,PTM:Methylation at Lys-5 ((H3K79me) are linked to gene activation. Methylation at Lys-5 (H3K4me) facilitates subsequent acetyla (H3K79me) is associated with DNA double-strand break (DSB) responses and is a specific target for TP5 Lys-28 (H3K27me) are linked to gene repression. Methylation at Lys-10 (H3K9me) is a specific target fo prevents subsequent phosphorylation at Ser-11 (H3S10ph) and acetylation of H3 and H4. Methylation a require preliminary monoubiquitination of H2B at 'Lys-120'. Methylation at Lys-10 (H3K9me) and Lys-28 chromosome chromatin.,PTM:Monoubiquitination of Lys-120 by RING1 and RNF2/RING2 complex gives repression and participates in X chromosome inactivation of female mammals. It is involved in the initi inactivation. Ubiquitinated H2A is enriched in inactive X chromosome chromatin. Ubiquitination of H2A 27' of histone H3. Monoubiquitination of Lys-120 by RNF2/RING2 can also be induced by ultraviolet and double-strand breaks (DSBs), it is ubiquitinated through 'Lys-63' linkage of ubiquitin moieties by the E2 RNF168, leading to the recruitment of repair proteins to sites of DNA damage. Monoubiquitination and ubiquitination are distinct events.,PTM:Phosphorylated at Thr-4 (H3T3ph) by GSG2/haspin during proph At centromeres, specifically phosphorylated at Thr-12 (H3T11ph) from prophase to early anaphase, pro Phosphorylation at Ser-11 (H3S10ph) by AURKB is crucial for chromosome condensation and cell-cycle addition phosphorylation at Ser-11 (H3S10ph) by RPS6KA4 and RPS6KA5 is important during interphase following external stimulation, like mitogens, stress, growth factors or UV irradiation and result in the a Phosphorylation at Ser-11, which is linked to gene activation, prevents methylation at Lys-10 (H3K9me Phosphorylation at Ser-11 (H3S10ph) by AURKB mediates the dissociation of HP1 proteins (CBX1, CBX3 Phosphorylation at Ser-11 (H3S10ph) is also an essential regulatory mechanism for neoplastic cell trans (H3S28ph) by MLTK isoform 1, RPS6KA5 or AURKB during mitosis or upon ultraviolet B irradiation.,PTM: GSG2/haspin during prophase and dephosphorylated during anaphase. At centromeres, specifically pho prophase to early anaphase, probably by DAPK3. Phosphorylation at Ser-11 (H3S10ph) by AURKB is cru cycle progression during mitosis and meiosis. In addition phosphorylation at Ser-11 (H3S10ph) by RPS6 interphase because it enables the transcription of genes following external stimulation, like mitogens, s result in the activation of genes, such as c-fos and c-jun. Phosphorylation at Ser-11 (H3S10ph), which is methylation at Lys-10 (H3K9me) but facilitates acetylation of H3 and H4. Phosphorylation at Ser-11 (H3 HP1 proteins (CBX1, CBX3 and CBX5) from heterochromatin. Phosphorylation at Ser-11 (H3S10ph) is al neoplastic cell transformation. Phosphorylated at Ser-29 by MLTK isoform 1, RPS6KA5 or AURKB during 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 a crucial role in the germ-cell lineage.,PTM:The chromatin-associated form is phosphorylated on Thr-12 CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction betwe accessibility to repair proteins.,similarity:Belongs to the histone H2A family.,similarity:Belongs to the hi histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heter The octamer wraps approximately 147 bp of DNA.,subunit:The nucleosome is a histone octamer contai H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps appro assembly the chaperone ASF1A interacts with the histone H3-H4 heterodimer.,

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