



Rabbit Anti-Phospho-Histone H3 (Ser10) antibody

SL3186R

Product Name:	Phospho-Histone H3 (Ser10)
Chinese Name:	磷酸化组蛋白H3抗体
Alias:	Histone H3 (phospho S10); Phospho-Histone H3(Ser10); Histone H3(Phospho-Ser10); Histone H3(p-Ser10); Histone H3(Phospho-S10); H3 histone family member E pseudogene; H3F3; HIST3H3; Histone H3 3 pseudogene; Histone H3; H3S; Histone H3-I/H3-II; Major histone H3; H3F; 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; H31 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Rabbit,Fruit Fly,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2µg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	15kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human Histone H3 around the phosphorylation site of Ser10:RK(p-S)TG
Isotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fibre is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. Covalent modifications of the canonical core histones, including acetylation, phosphorylation, methylation, and monoubiquitination are used to mark nucleosomes to create chromatin domains with a range of functions. The information encoded by histone modifications can contribute to the formation and/or maintenance of transcriptionally active and inactive chromatin in response to various signalling pathways.

Function:

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. H3 is deposited into chromatin exclusively through a DNA replication-coupled pathway that can be associated with either DNA duplication or DNA repair synthesis during meiotic homologous recombination.

Subunit:

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. Interacts with GCN5, whereby H3S10ph increases histone-protein interactions. Interacts with PDD1 and PDD3.

Subcellular Location:

Nucleus. Chromosome. Note=Localizes to both the large, transcriptionally active, somatic macronucleus (MAC) and the small, transcriptionally inert, germ line micronucleus (MIC).

Post-translational modifications:

Phosphorylated to form H3S10ph. H3S10ph promotes subsequent H3K14ac formation by GCN5. H3S10ph is only found in the mitotically dividing MIC, but not in the amitotically dividing MAC. H3S10ph is correlated with chromosome condensation during mitotic or meiotic micronuclear divisions.

Acetylation of histone H3 leads to transcriptional activation. H3K14ac formation by GCN5 is promoted by H3S10ph. H3K9acK14ac is the preferred acetylated form of newly synthesized H3. Acetylation occurs almost exclusively in the MAC.

Methylated to form H3K4me. H3K4me is only found in the transcriptionally active MAC. Methylated to form H3K9me in developing MACs during conjugation, when genome-wide DNA elimination occurs. At this stage, H3K9me specifically occurs on DNA sequences being eliminated (IES), probably targeted by small scan RNAs (scnRNAs) bound to IES, and is required for efficient IES elimination. H3K9me is

Product Detail:

required for the interaction with the chromodomains of PDD1 and PDD3. The full-length protein H3S (slow migrating) is converted to H3F (fast migrating) by proteolytic removal of the first 6 residues. H3F is unique to MIC, and processing seems to occur regularly each generation at a specific point in the cell cycle.

Similarity:

Belongs to the histone H3 family.

SWISS:

Q16695

Gene ID:

8290

Database links:

[Entrez Gene: 8350](#)Human

[Entrez Gene: 8351](#)Human

[Entrez Gene: 8352](#)Human

[Entrez Gene: 8353](#)Human

[Entrez Gene: 8354](#)Human

[Entrez Gene: 8355](#)Human

[Entrez Gene: 8356](#)Human

[Entrez Gene: 8357](#)Human

[Entrez Gene: 8358](#)Human

[Entrez Gene: 8968](#)Human

[Entrez Gene: 319152](#)Mouse

[Entrez Gene: 319153](#)Mouse

[Entrez Gene: 360198](#)Mouse

[Entrez Gene: 97908](#)Mouse

[Entrez Gene: 100364501](#)Rat

[Entrez Gene: 100365669](#)Rat

[Entrez Gene: 291159](#)Rat

[Entrez Gene: 679994](#)Rat

[Entrez Gene: 680511](#)Rat

[Entrez Gene: 682330](#)Rat

[Omid: 601128](#)Human

[SwissProt: P68431](#)Human

[SwissProt: Q16695](#)Human

[SwissProt: Q93081](#)Human

[SwissProt: P68433](#)Mouse

[SwissProt: Q6LED0](#)Rat

[Entrez Gene: 8290](#)Human

[Entrez Gene: 8350](#)Human

[Entrez Gene: 8351](#)Human

[Entrez Gene: 8352](#)Human

[Entrez Gene: 8353](#)Human

[Entrez Gene: 8354](#)Human

[Entrez Gene: 8355](#)Human

[Entrez Gene: 8356](#)Human

[Entrez Gene: 8357](#)Human

[Entrez Gene: 8358](#)Human

[Entrez Gene: 8968](#)Human

[Entrez Gene: 260423](#)Mouse

[Entrez Gene: 319148](#)Mouse

[Entrez Gene: 319149](#)Mouse

[Entrez Gene: 319150](#)Mouse

[Entrez Gene: 319151](#)Mouse

[Entrez Gene: 319152](#)Mouse

[Entrez Gene: 319153](#)Mouse

[Entrez Gene: 360198](#)Mouse

[Entrez Gene: 97908](#)Mouse

[Entrez Gene: 100364501](#)Rat

[Entrez Gene: 100365669](#)Rat

[Entrez Gene: 291159](#)Rat

[Entrez Gene: 314977](#)Rat

[Entrez Gene: 364716](#)Rat

[Entrez Gene: 679950](#)Rat

[Entrez Gene: 679994](#)Rat

[Entrez Gene: 680511](#)Rat

[Entrez Gene: 680599](#)Rat

[Entrez Gene: 682330](#)Rat

[Entrez Gene: 691496](#)Rat

[Omim: 601128](#)Human

[Omim: 602810](#)Human

[Omim: 602811](#)Human

[Omim: 602812](#)Human

[Omim: 602813](#)Human

[Omim: 602814](#)Human

[Omim: 602815](#)Human

[Omim: 602816](#)Human

[Omim: 602817](#)Human

[Omim: 602818](#)Human

[Omim: 602819](#)Human

[SwissProt: P68431](#)Human

[SwissProt: P84243](#)Human

[SwissProt: Q16695](#)Human

[SwissProt: Q6NXT2](#)Human

[SwissProt: Q71DI3](#)Human

[SwissProt: P68433](#)Mouse

[SwissProt: P84228](#)Mouse

[SwissProt: Q6LED0](#)Rat

[Unigene: 132854](#)Human

[Unigene: 247813](#)Human

[Unigene: 247814](#)Human

[Unigene: 248176](#)Human

[Unigene: 443021](#)Human

[Unigene: 484990](#)Human

[Unigene: 532144](#)Human

[Unigene: 533292](#)Human

[Unigene: 546315](#)Human

[Unigene: 586261](#)Human

[Unigene: 591778](#)Human

[Unigene: 221301](#)Mouse

[Unigene: 261657](#)Mouse

[Unigene: 377874](#)Mouse

[Unigene: 390558](#)Mouse

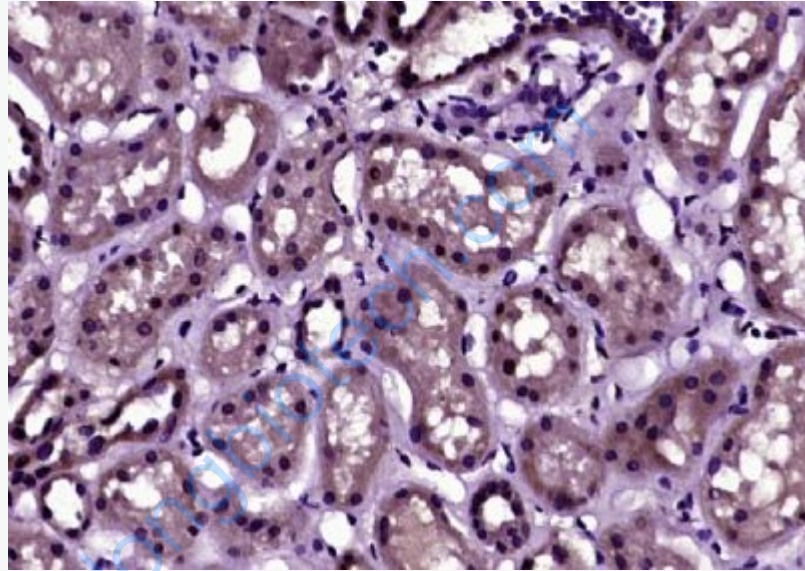
[Unigene: 397328](#)Mouse

[Unigene: 138090](#)Rat

Important Note:

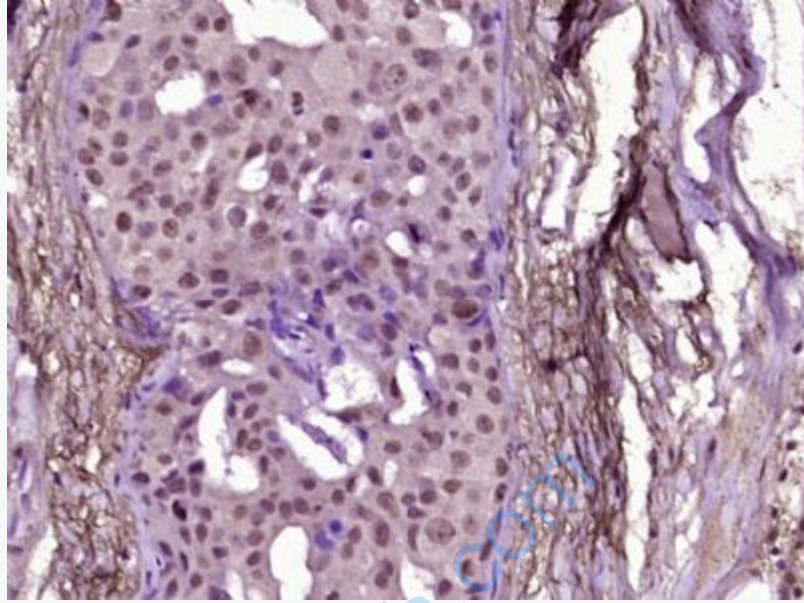
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

组蛋白的基因非常保守, 在亲缘关系较远的种属中, 四种组蛋白(H2A、H2A、H3、H4)氨基酸序列都非常相似, 如海胆组织H3的氨基酸序列与来自小牛胸腺的H3的氨基酸序列间只有一个氨基酸的差异, 小牛胸腺的H3的氨基酸序列与豌豆的H3也很相似。组蛋白是The nucleus内的一种碱性核蛋白, 抗组蛋白抗体即是以组蛋白为靶抗原的一种自身, 是抗核抗体的一种。分子量: 16-18KDa。主要与药物性红斑狼疮、系统性红斑狼疮、类风湿关节炎有关。

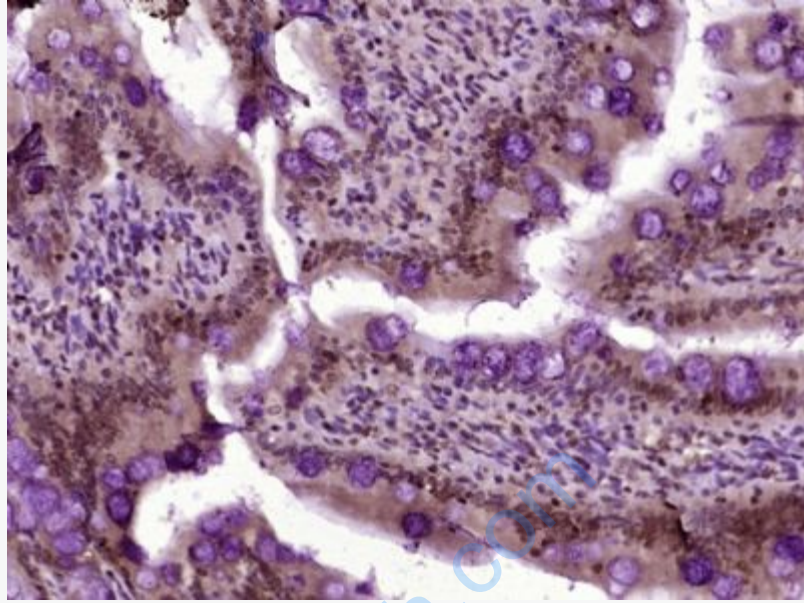


Picture:

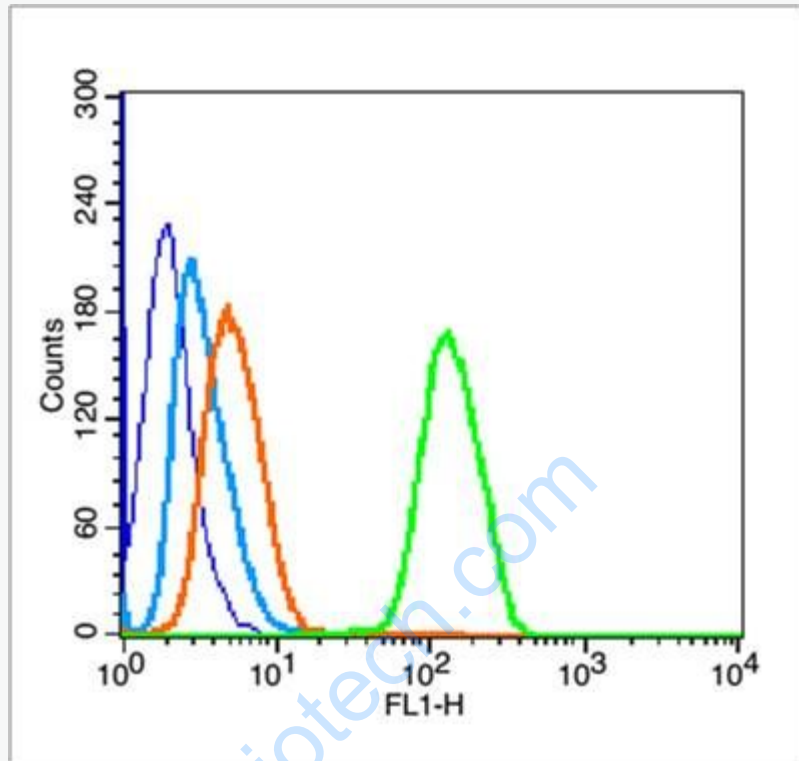
Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-Histone H3 (Ser10)) Polyclonal Antibody, Unconjugated (SL3186R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-Histone H3 (Ser10)) Polyclonal Antibody, Unconjugated (SL3186R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-Histone H3 (Ser10)) Polyclonal Antibody, Unconjugated (SL3186R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

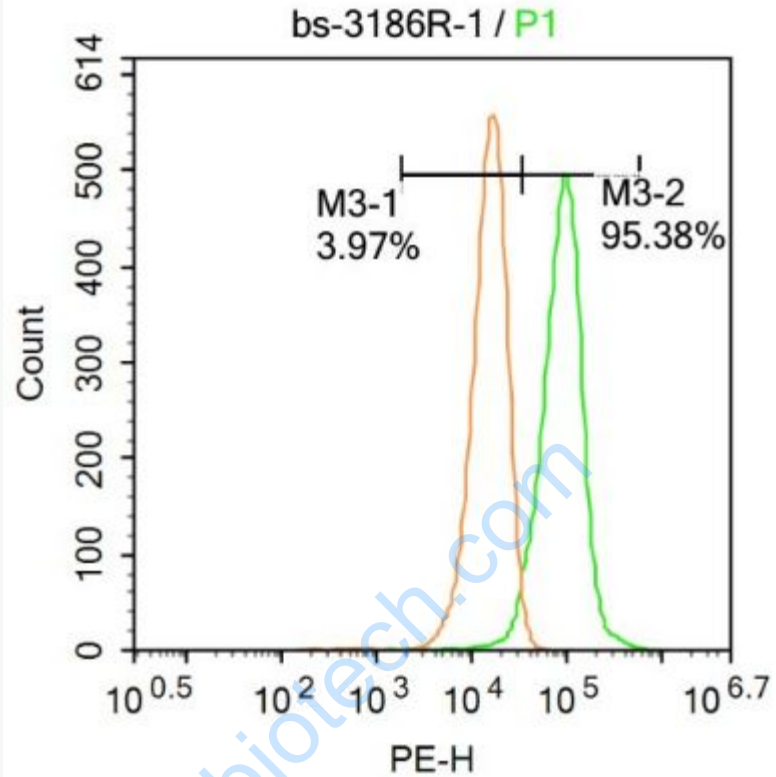


Blank control (blue line): HeLa(fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody (green line): Rabbit Anti-Phospho-Histone H3 (Ser10) antibody (SL3186R),Dilution: 0.2µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC,Dilution: 1µg /test.



Blank control:U-87MG.

Primary Antibody (green line): Rabbit Anti-Phospho-Histone H3 antibody (SL3186R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room

temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.

www.sunlongbiotech.com