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Rabbit Anti-Histone H3/HIST3H3 (Nuclear Loading Control) antibody

SL0349R

Product Name:	Histone H3/HIST3H3 (Nuclear Loading Control)
Chinese Name:	组蛋白H3抗体
Alias:	H3 histone family member E pseudogene; H3F3; HIST3H3; Histone H3 3 pseudogene; H31_TETTH; 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.
文献引用 PubMed :	**Specific References(9)**|SL0349R has been referenced in 9 publications. **[IF=2.97]**Liu, Donghui, et al. ?Nonenzymatic glycation of high-density lipoprotein impairs its anti-inflammatory effects in innate immunity.? Diabetes/Metabolism Research and Reviews 28.2 (2012): 186-195.**WB;Human**. PubMed:21928330 **[IF=1.31]**Wang, Chunqiang, Wei Ma, and Yuhong Su. ?NF-κB Pathway Contributes to Cadmium-Induced Apoptosis of Porcine Granulosa Cells.? Biological trace element research (2013): 1-8.**WB;Pig**. PubMed:23575899 **[IF=4.75]**Duan, Chao, et al. "Oestrogen receptor-mediated expression of Olfactomedin 4 regulates the progression of endometrial adenocarcinoma." Journal of Cellular and Molecular Medicine (2014).**WB;Human**. PubMed:24495253 **[IF=1.52]**Tang, Z-X., et al. "Selective antegrade cerebral perfusion attenuating the TLR4/NF-κB pathway during deep hypothermia circulatory arrest in a pig model." Cardiology 128.3 (2014): 243-250.**WB;Pig**.

	PubMed:24819356 [IF=8.56]Qian, Yi, et al. "Silver Nanoparticle-Induced Hemoglobin Decrease Involves Alteration of Histone 3 Methylation Status." Biomaterials (2015).**WB;Mouse**. PubMed:26295435 [IF=1.88]Zhao, Hongyu, et al. "Glycyrrhizic Acid Attenuates Sepsis-Induced Acute Kidney Injury by Inhibiting NF-κB Signaling Pathway." Evidence-Based Complementary and Alternative Medicine (2015).**WB;Rat**. PubMed:not posted yet [IF=2.68]Shen, Haitao, et al. "Epigallocatechin-3-gallate alleviates paraquat-induced acute lung injury and inhibits upregulation of toll-like receptors." Life Sciences (2016).**WB;Mouse**. PubMed:27890776 [IF=3.91]Dong, Wei-tao, et al. "iTRAQ proteomic analysis of the interactions between Bombyx mori nuclear polyhedrosis virus and silkworm." Journal of Proteomics (2017).**WB;Other Species**. PubMed:0 [IF=4.12]Joy, Marion, et al. "The Myocardin-related transcription factor MKL co-regulates the cellular levels of two profilin isoforms." Journal of Biological Chemistry (2017): jbc-M117.**WB;Human**. PubMed:28546428
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Rabbit,Fruit Fly,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/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 synthetic peptide derived from human Histone H3:71-136/136
Lsotype:	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
Product Detail:	Modulation of the chromatin structure plays an important role in the regulation of transcription in eukaryotes. The nucleosome, made up of four core histone proteins (H2A, H2B, H3 and H4), is the primary building block of chromatin. The N-terminal tail of core histones undergoes different posttranslational modifications including acetylation, phosphorylation and methylation. These modifications occur in response to cell signal stimuli and have a direct effect on gene expression. In most species, the histone H2B is primarily acetylated at lysines 5, 12, 15 and 20. Histone H3 is primarily acetylated at lysines 9, 14, 18 and 23. Acetylation at lysine 9 appears to have a dominant role in histone deposition and chromatin assembly in some organisms. Phosphorylation at Ser10 of histone H3 is tightly correlated with chromosome condensation during both mitosis and meiosis. **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 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:
P84243

Gene ID:
8290

Database links:

Entrez Gene: 326601Cow

Entrez Gene: 8350Human

Entrez Gene: 8351Human

Entrez Gene: 8352Human

Entrez Gene: 8353Human

Entrez Gene: 8354Human

Entrez Gene: 8355Human

Entrez Gene: 8290Human

Entrez Gene: 8350Human

Entrez Gene: 8351Human

Entrez Gene: 8352Human

Entrez Gene: 8353Human

Entrez Gene: 8354Human

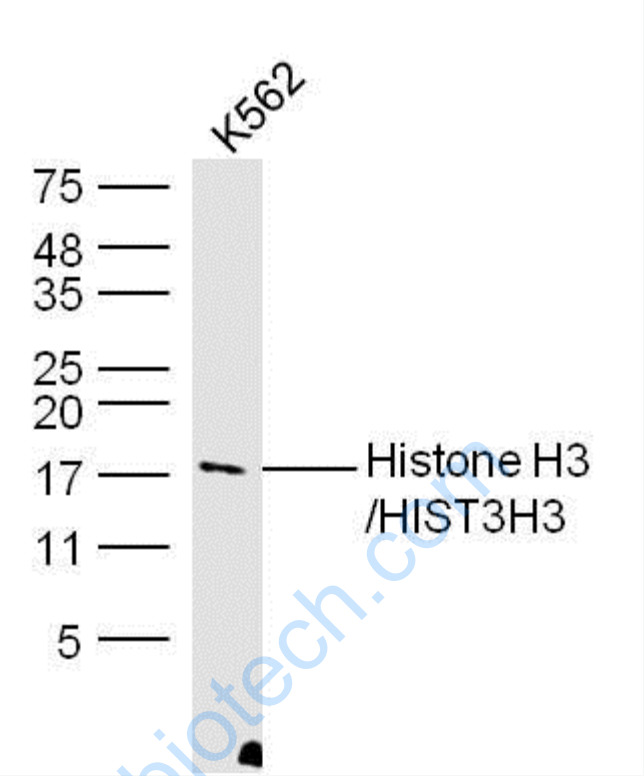
Entrez Gene: 8355Human

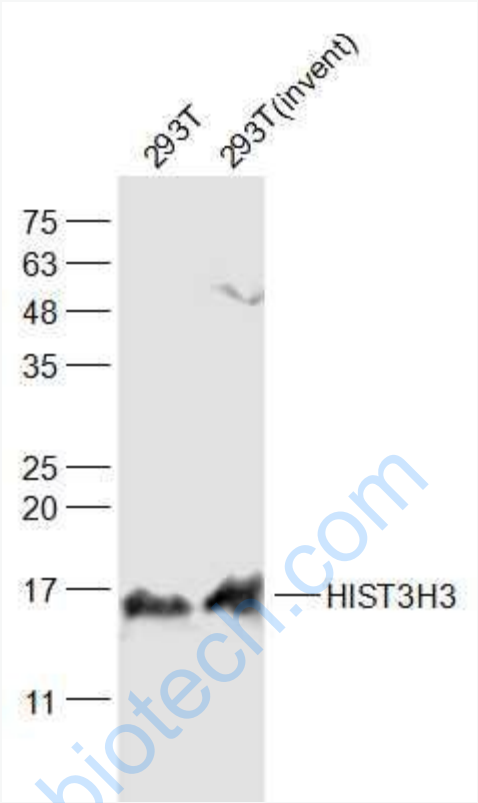
Entrez Gene: 8356Human

	Entrez Gene: 8357Human Entrez Gene: 8358Human Entrez Gene: 8968Human Entrez Gene: 260423Mouse Entrez Gene: 319148Mouse Entrez Gene: 319149Mouse Entrez Gene: 319150Mouse Entrez Gene: 319151Mouse Entrez Gene: 319152Mouse Entrez Gene: 319153Mouse Entrez Gene: 360198Mouse Entrez Gene: 97908Mouse Entrez Gene: 100364501Rat Entrez Gene: 100365669Rat Entrez Gene: 291159Rat Entrez Gene: 314977Rat Entrez Gene: 364716Rat Entrez Gene: 679950Rat Entrez Gene: 679994Rat Entrez Gene: 680511Rat Entrez Gene: 680599Rat Entrez Gene: 682330Rat Entrez Gene: 691496Rat Omim: 601128Human Omim: 602810Human

	Omim: 602811Human Omim: 602812Human Omim: 602813Human Omim: 602814Human Omim: 602815Human Omim: 602816Human Omim: 602817Human Omim: 602818Human Omim: 602819Human SwissProt: P68431Human SwissProt: P84243Human SwissProt: Q16695Human SwissProt: Q6NXT2Human SwissProt: Q71DI3Human SwissProt: P68433Mouse SwissProt: P84228Mouse SwissProt: Q6LED0Rat Unigene: 132854Human Unigene: 247813Human Unigene: 247814Human Unigene: 248176Human Unigene: 443021Human Unigene: 484990Human Unigene: 532144Human Unigene: 533292Human

	Unigene: 546315Human Unigene: 586261Human Unigene: 591778Human Unigene: 221301Mouse Unigene: 261657Mouse Unigene: 377874Mouse Unigene: 390558Mouse Unigene: 397328Mouse Unigene: 138090Rat **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:	 Sample: K562 Cell Lysate at 40 ug Primary: Anti-Histone H3/HIST3H3(SL0349R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution Predicted band size: 15kD Observed band size: 17kD



Sample:

293T(Human) Cell Lysate at 30 ug

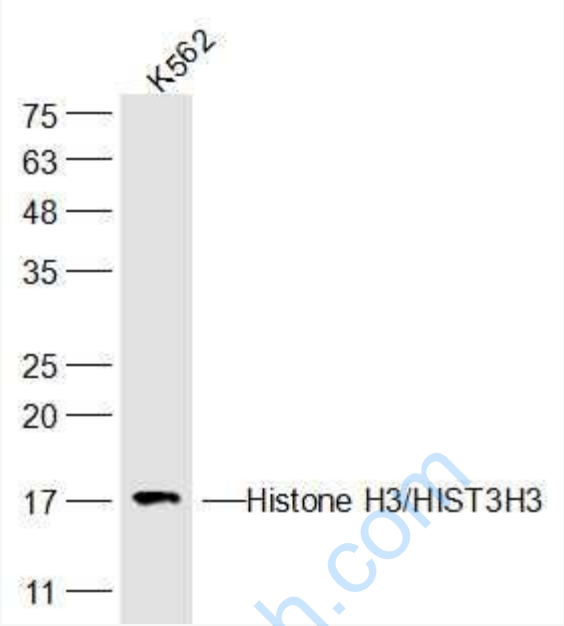
293T(invent)(Human) Cell Lysate at 30 ug

Primary: Anti-HIST3H3? (SL0349R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 15 kD

Observed band size: 15 kD



Sample:

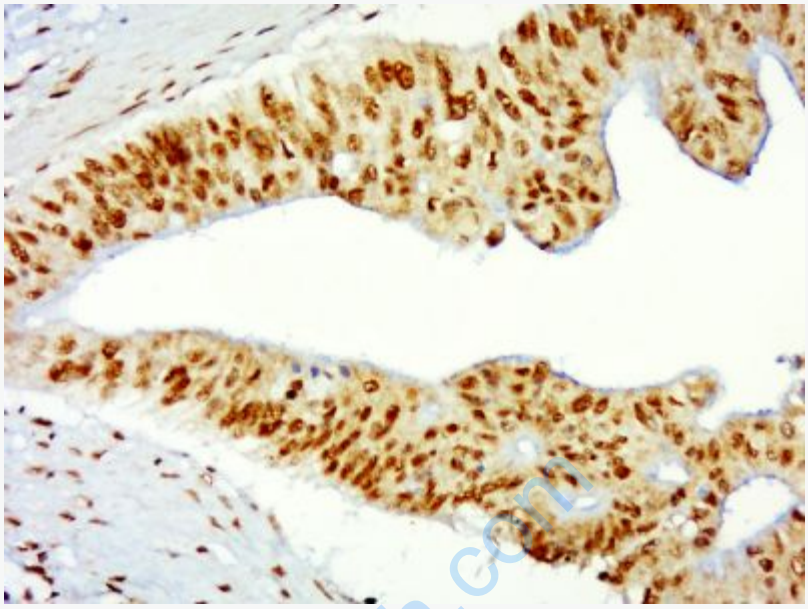
K562(Human) Cell Lysate at 30 ug

Primary: Anti-Histone H3/HIST3H3 (SL0349R) at 1/300 dilution

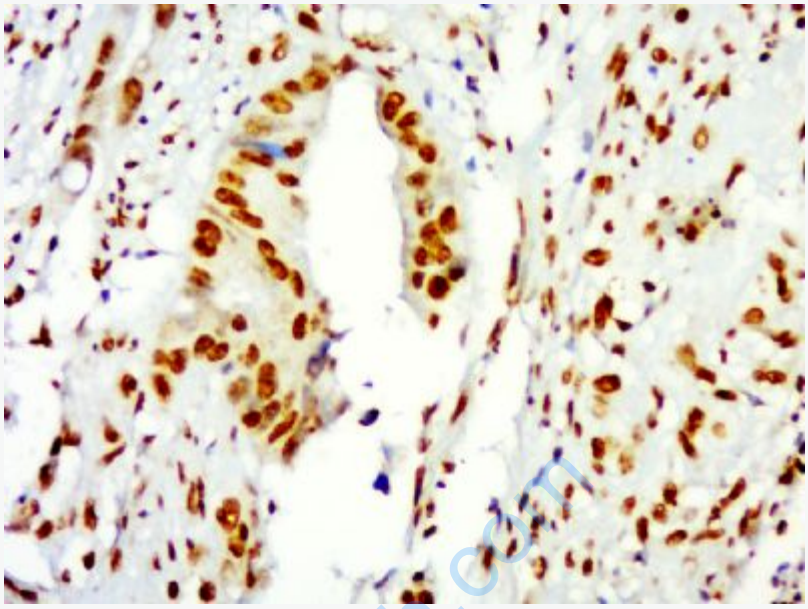
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 15 kD

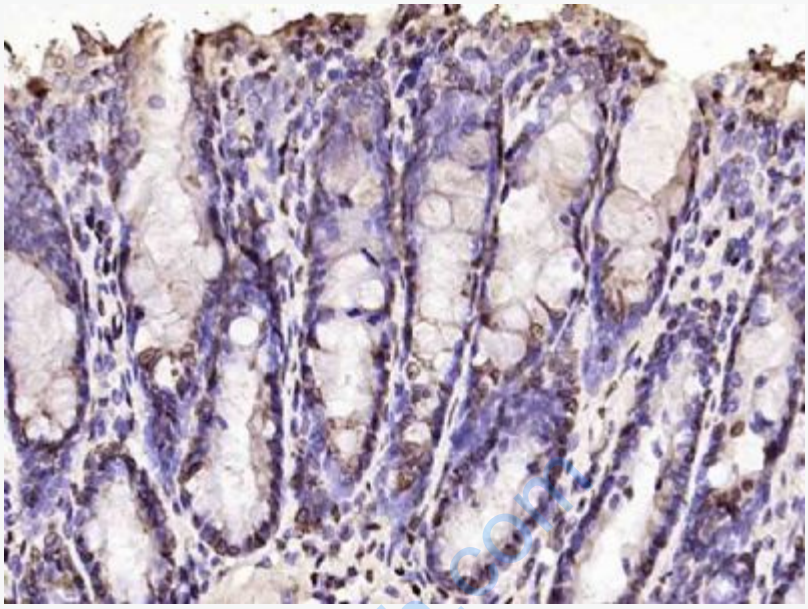
Observed band size: 17 kD



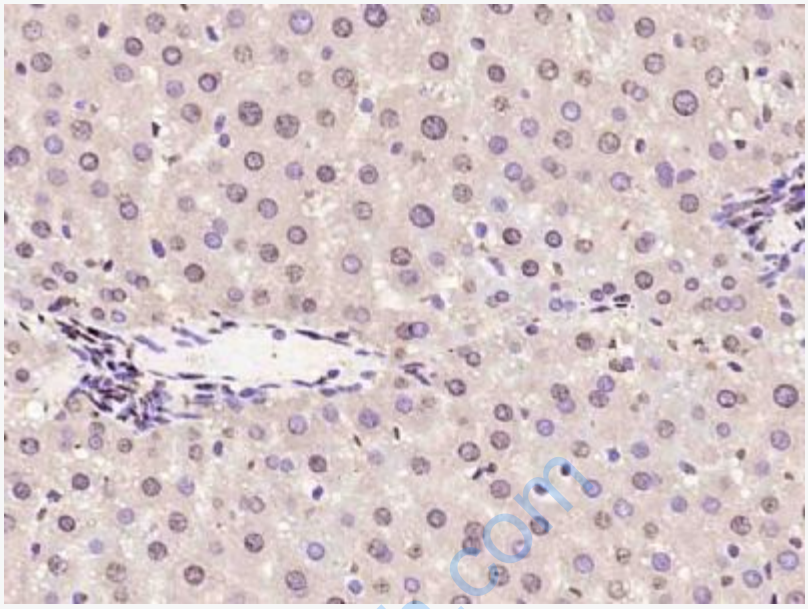
Paraformaldehyde-fixed, paraffin embedded (human cervical carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HIST3H3) Polyclonal Antibody, Unconjugated (SL0349R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



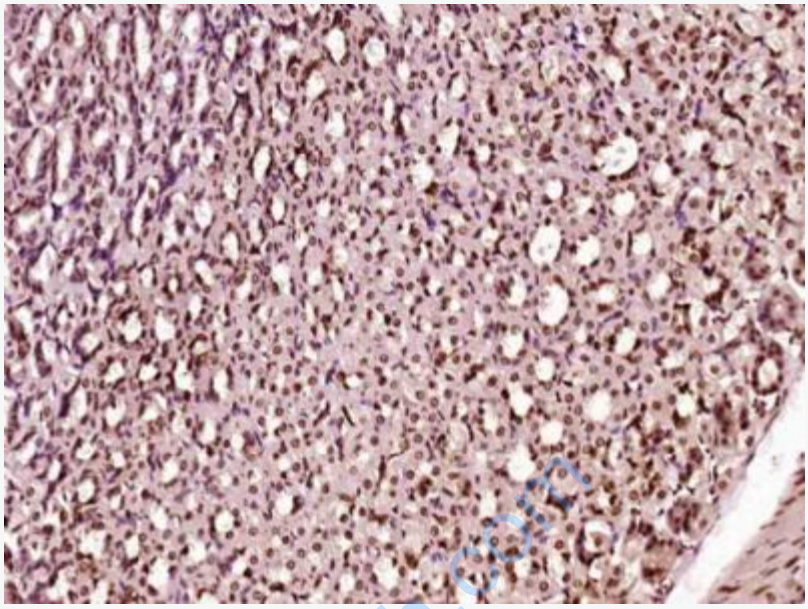
Paraformaldehyde-fixed, paraffin embedded (human colon cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HIST3H3) Polyclonal Antibody, Unconjugated (SL0349R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



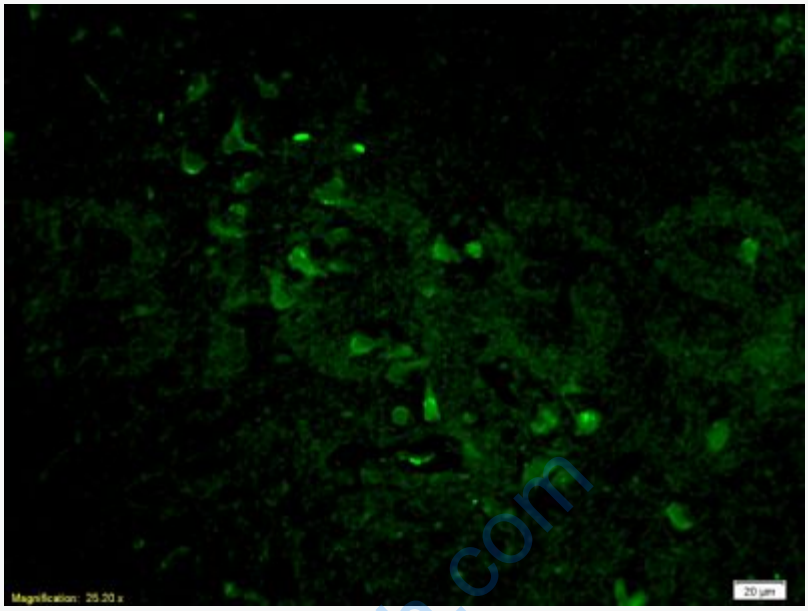
Paraformaldehyde-fixed, paraffin embedded (rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Histone H3(Nuclear Loading Control)) Polyclonal Antibody, Unconjugated (SL0349R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat liver); 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 (Histone H3(Nuclear Loading Control)) Polyclonal Antibody, Unconjugated (SL0349R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse stomach); 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 (Histone H3) Polyclonal Antibody, Unconjugated (SL0349R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

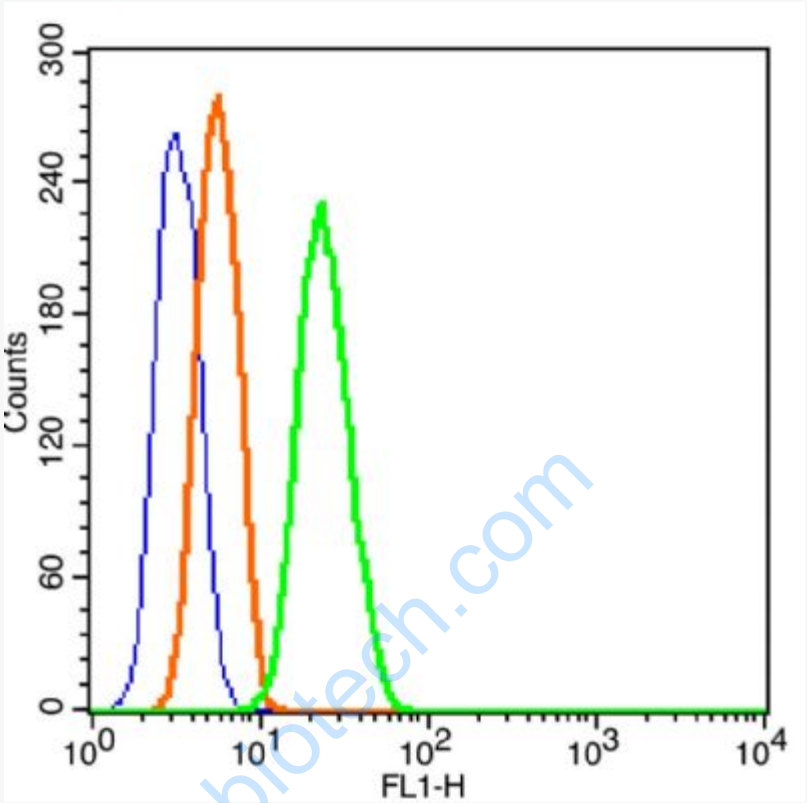


Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min;

Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Histone H3 Polyclonal Antibody, FITC conjugated (SL0349R) used at 1:100 dilution for 40 minutes at 37癈.



Blank control: K562.

Primary Antibody (green line): Rabbit Anti-Histone H3/HIST3H3 antibody (SL0349R)

Dilution: 1µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

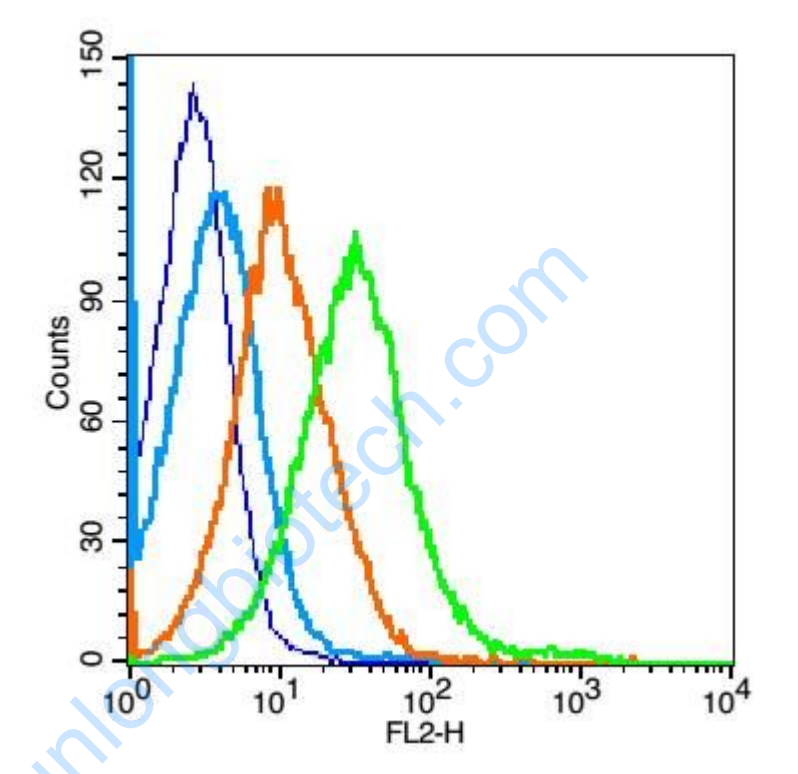
Dilution: 1µg /test.

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℃. 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.



Blank control: Mouse spleen cells (blue).

Primary Antibody:Rabbit Anti-Histone H3/HIST3H3 antibody(SL0349R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min). Primary antibody (SL0349R) were incubated for 30 min on the ice, followed by 1 X PBS containing

	0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.