



Mouse Anti-Histone H3 (Nuclear Loading Control)antibody

SLM-33042M

Product Name Histone H3 (Nuclear Loading Control)

Chinese Name 组蛋白 H3 (核内参) 单克隆抗体

Alias H3 histone family member E pseudogene; H3 histone family, member A; H3/A; H31_HUMAN; HIST1H3B; HIST1H3C; HIST1H3D; HIST1H3E; HIST1H3F; HIST1H3G; HIST1H3H; HIST1H3I; HIST1H3J; HIST1H3K; HIST1H3L; HIST1H3M; HIST1H3N; HIST1H3O; HIST1H3P; HIST1H3Q; HIST1H3R; HIST1H3S; HIST1H3T; HIST1H3U; HIST1H3V; HIST1H3W; HIST1H3X; HIST1H3Y; HIST1H3Z; HIST3H3; histone 1, H3a; Histone cluster 1, H3a; Histone H3 3 pseudogene; Histone H3.1; Histone H3.2; Histone H3.3; Histone H3.4; Histone H3.5; Histone H3.6; Histone H3.7; Histone H3.8; Histone H3.9; Histone H3/c; Histone H3/d; Histone H3/e; Histone H3/f; Histone H3/g; Histone H3/h; Histone H3/i; Histone H3/j; Histone H3/k; Histone H3/l; Histone H3/m; Histone H3/n; Histone H3/o; Histone H3/p; Histone H3/q; Histone H3/r; Histone H3/s; Histone H3/t; Histone H3/u; Histone H3/v; Histone H3/w; Histone H3/x; Histone H3/y; Histone H3/z; H3C1; H3C10; H3C11; H3C12; H3C2; H3C3; H3C4; H3C7; H3C8; H3FD; Nuclear Loading Control

Product Type Internal reference anti

Research Area Cell biology immunology Cyclin Cell type markers

Immunogen Species Mouse

Clonality Monoclonal

Clone NO. 3G1

React Species Human,Mouse,Rat(predicted:Bee,Hamster)

Applications WB=1:2000-20000,IHC-P=1:1000-2000,IHC-F=1:1000-2000,IF=1:100-500 (Paraffin sections)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 15kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Histone H3

Lsotype IgG

Purification affinity purified by Protein G

Buffer Solution Human,Mouse,Rat(predicted:Bee,Hamster)1M TBS(pH7.4) with 1% BSA,
Human,Mouse,Rat(predicted:Bee,Hamster)3% Proclin300 and 50% Glycerol.



Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d
PubMed	PubMed Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromo eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted by interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin. This gene is intronless and encodes a replication-dependent histone that is a member of the histone H3 this gene lack polyA tails; instead, they contain a palindromic termination element. This gene is the other H3 genes that are in the histone gene cluster on chromosome 6p22-p21.3. [provided by Function: Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting access to cellular machineries which require DNA as a template. Histones thereby play a central role in tra DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a co post-translational modifications of histones, also called histone code, and nucleosome remodelin Subunit: The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 a heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DN Subcellular Location: Nucleus; Chromosome Tissue Specificity: Expressed in testicular cells.Expressed during S phase, then expression strongly decreases as cel during the process of differentiation. Post-translational modifications: Acetylation is generally linked to gene activation. Acetylation on Lys-10 (H3K9ac) impairs methylation (H3R8me2s). Acetylation on Lys-19 (H3K18ac) and Lys-24 (H3K24ac) favors methylation at Arg-3 Acetylation at Lys-123 (H3K122ac) by EP300/p300 plays a central role in chromatin structure: lo the histone octamer and stimulates transcription, possibly by promoting nucleosome instability (H3K9ac) Citrullination at Arg-9 (H3R8ci) and/or Arg-18 (H3R17ci) by PADI4 impairs methylation and repressio Asymmetric dimethylation at Arg-18 (H3R17me2a) by CARM1 is linked to gene activation. Symmetric dimethylation Arg-9 (H3R8me2s) by PRMT5 is linked to gene repression. Asymmetric dimethylation at Arg-3 (H3R3me2s) is linked to gene repression and is mutually exclusive with H3 Lys-5 methylation (H3K4me2 and H3K4me3) is present at the 3' of genes regardless of their transcription state and is enriched on inactive promoters active promoters (By similarity). Methylation at Lys-5 (H3K4me), Lys-37 (H3K36me) and Lys-80 (H3K79me) are linked to gene repression. at Lys-5 (H3K4me) facilitates subsequent acetylation of H3 and H4. Methylation at Lys-80 (H3K79me) DNA double-strand break (DSB) responses and is a specific target for TP53BP1. Methylation at Lys-37 (H3K36me) Lys-28 (H3K27me) are linked to gene repression. Methylation at Lys-10 (H3K9me) is a specific
Product Detail	

(CBX1, CBX3 and CBX5) and prevents subsequent phosphorylation at Ser-11 (H3S10ph) and Methylation at Lys-5 (H3K4me) and Lys-80 (H3K79me) require preliminary monoubiquitination. Methylation at Lys-10 (H3K9me) and Lys-28 (H3K27me) are enriched in inactive X chromosome. Monomethylation at Lys-57 (H3K56me1) by EHMT2/G9A in G1 phase promotes interaction with PCNA for DNA replication (By similarity).

Phosphorylated at Thr-4 (H3T3ph) by GSG2/haspin during prophase and dephosphorylated during metaphase. Phosphorylation at Ser-11 (H3S10ph) by AURKB is crucial for chromosome condensation and occurs during mitosis and meiosis. In addition phosphorylation at Ser-11 (H3S10ph) by RPS6KA4 and RPS6KB1 during interphase because it enables the transcription of genes following external stimulation, like growth factors or UV irradiation and result in the activation of genes, such as c-fos and c-jun. Phosphorylation at Ser-11 (H3S10ph), which is linked to gene activation, prevents methylation at Lys-10 (H3K9me) but facilitates methylation at Lys-80 (H3K79me) and H4. Phosphorylation at Ser-11 (H3S10ph) by AURKB mediates the dissociation of HP1 protein from CBX5) from heterochromatin. Phosphorylation at Ser-11 (H3S10ph) is also an essential regulator of neoplastic cell transformation. Phosphorylated at Ser-29 (H3S28ph) by MLTK isoform 1, RPS6KB1 during mitosis or upon ultraviolet B irradiation. Phosphorylation at Thr-7 (H3T6ph) by PRKCB is a specific transcriptional activation that prevents demethylation of Lys-5 (H3K4me) by LSD1/KDM1A. At the end of metaphase phosphorylated at Thr-12 (H3T11ph) from prophase to early anaphase, by DAPK3 and PKN1. Phosphorylation at Thr-12 (H3T11ph) by PKN1 is a specific tag for epigenetic transcriptional activation that promotes demethylation of Lys-9 (H3K9me) by KDM4C/JMJD2C. Phosphorylation at Tyr-42 (H3Y41ph) by JAK2 promotes excision of alpha) from chromatin (By similarity).

Ubiquitinated.

Lysine deamination at Lys-5 (H3K4all) to form allysine is mediated by LOXL2. Allysine formation occurs in place on H3K4me3 and results in gene repression.

Similarity:

Belongs to the histone H3 family.

SWISS:

P68431

Gene ID:

8350

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: 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

[SwissProt: P68431](#) Human

[SwissProt: P84243](#) Human

[SwissProt: Q16695](#) Human

[SwissProt: Q6NXT2](#) Human

[SwissProt: Q71DI3](#) Human

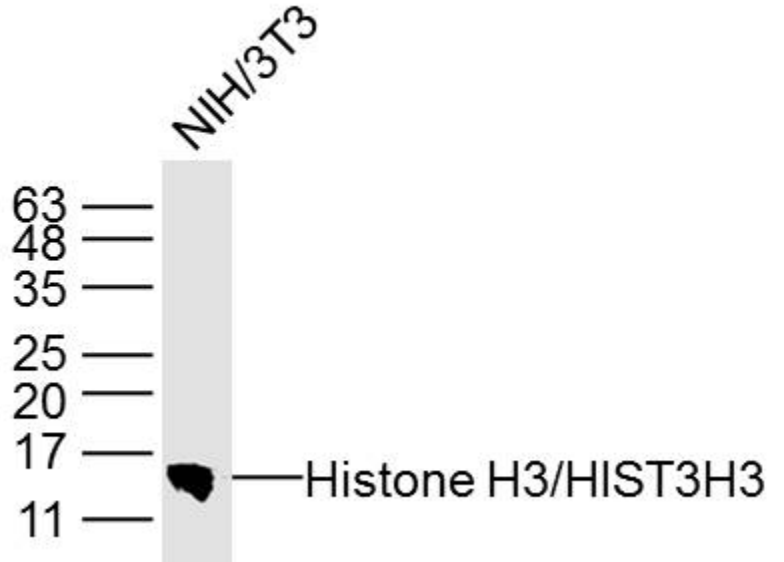
[SwissProt: P68433](#) Mouse

[SwissProt: P84228](#) Mouse

[SwissProt: Q6LED0](#) Rat

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)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。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、类风湿关节炎有关。

**Product
Picture**



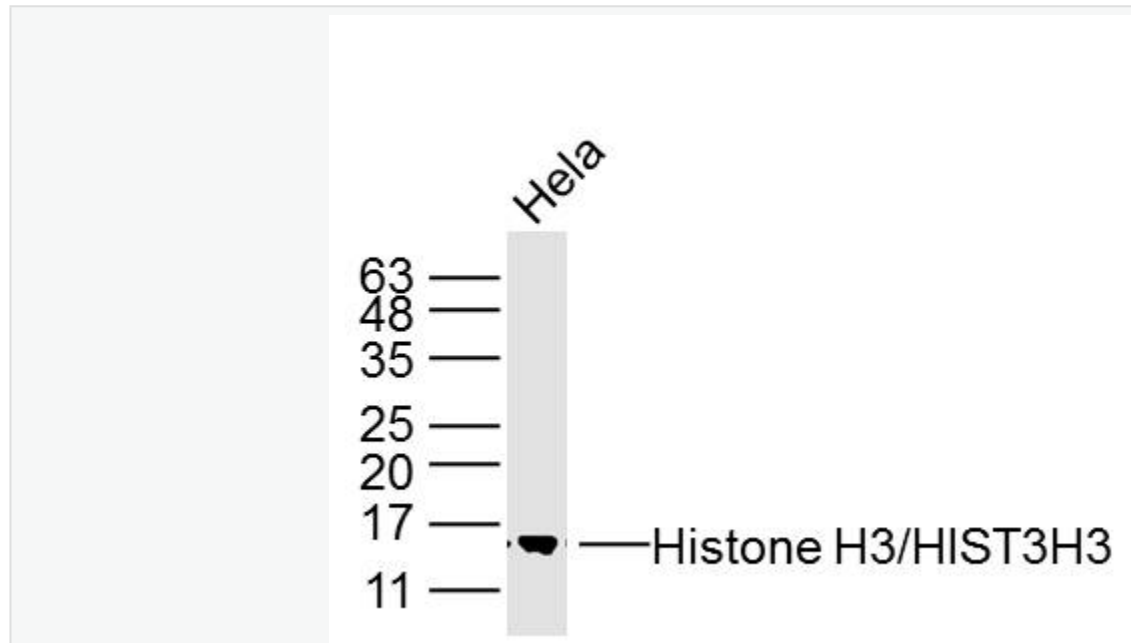
Sample: NIH/3T3 Cell(Mouse) Lysate at 40 ug

Primary: Anti-Histone H3/HIST3H3(SLM-33042M)at 1/1000 dilution

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

Predicted band size: 15kD

Observed band size: 15kD



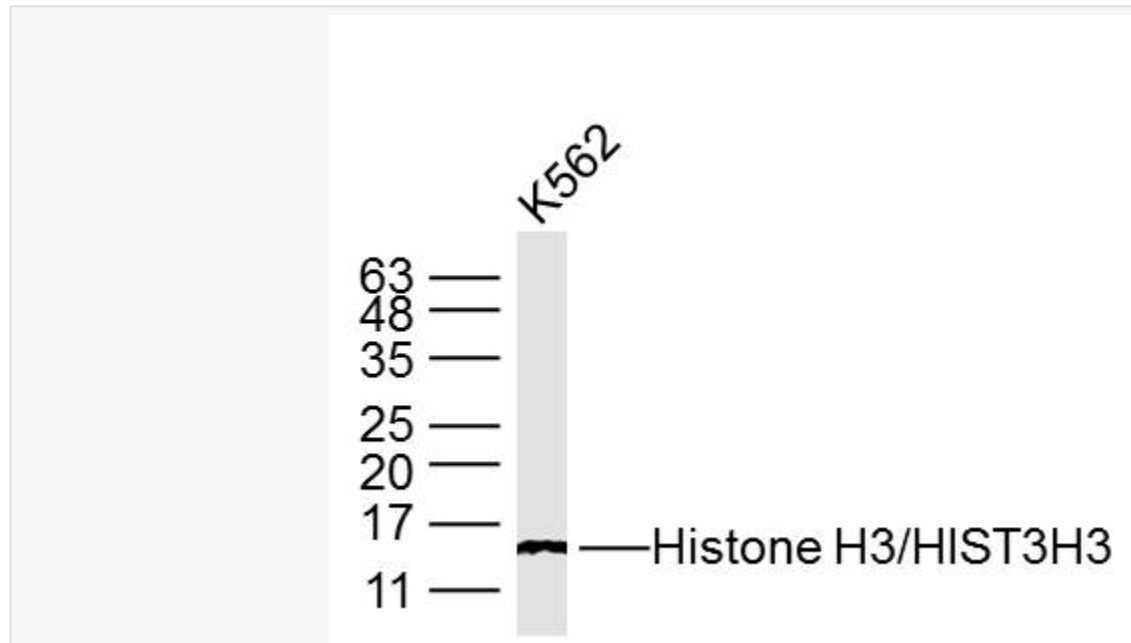
Sample:HeLa Cell (Human) Lysate at 40 ug

Primary: Anti-Histone H3/HIST3H3(SLM-33042M)at 1/1000 dilution

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

Predicted band size: 15kD

Observed band size: 15kD



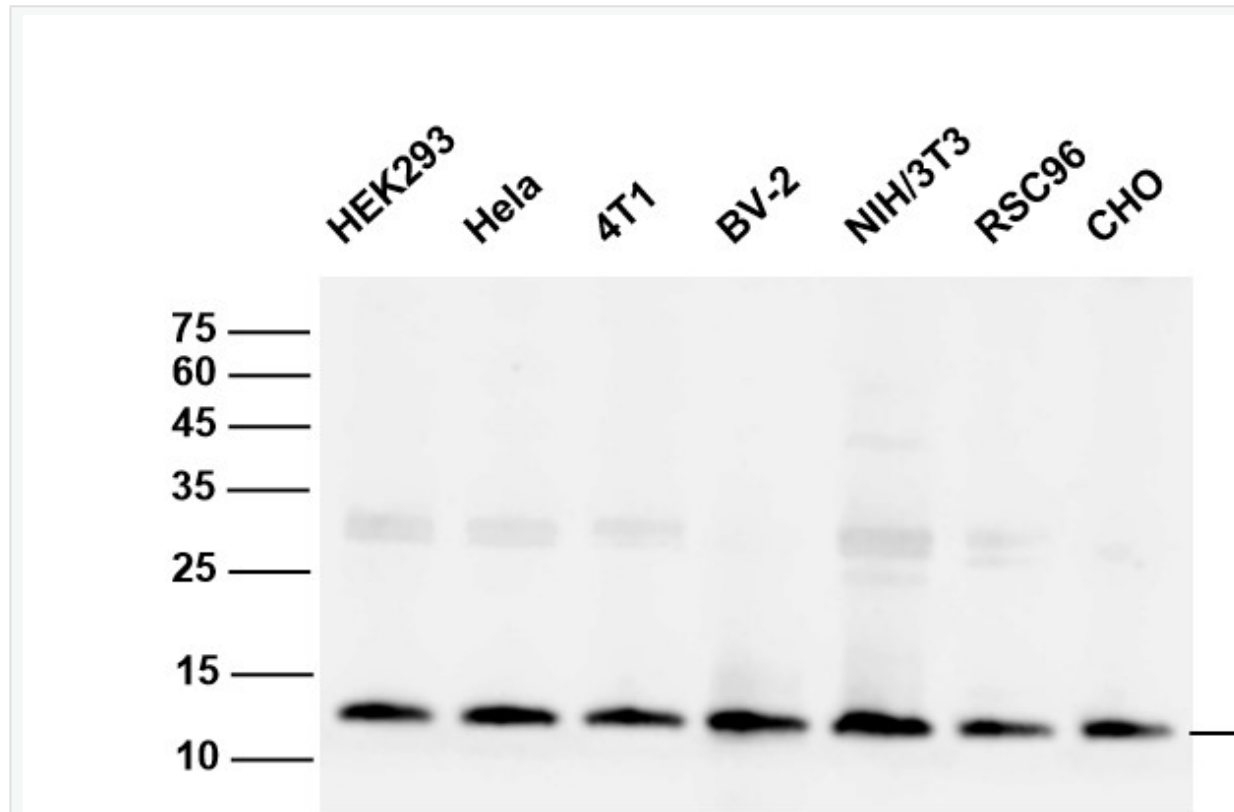
Sample: K562 Cell (Human) Lysate at 40 ug

Primary: Anti-Histone H3/HIST3H3(SLM-33042M)at 1/1000 dilution

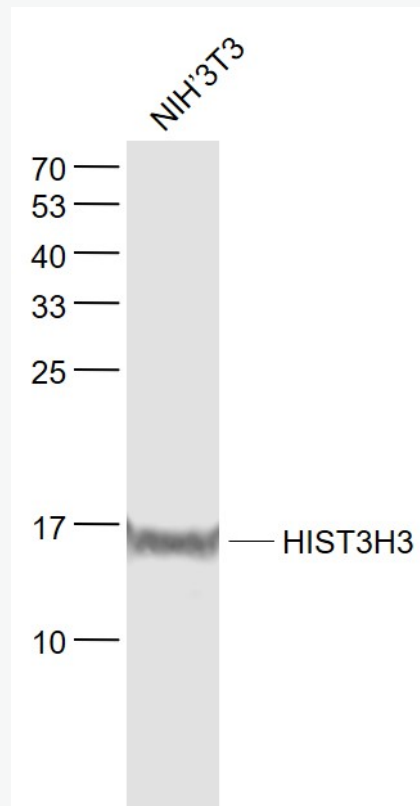
Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 15kD

Observed band size: 15kD



Various lysates were subjected to SDS PAGE followed by WB with SLM-33042M (Anti-Hist
1:20000 incubated at 4°C overnight.



Sample:

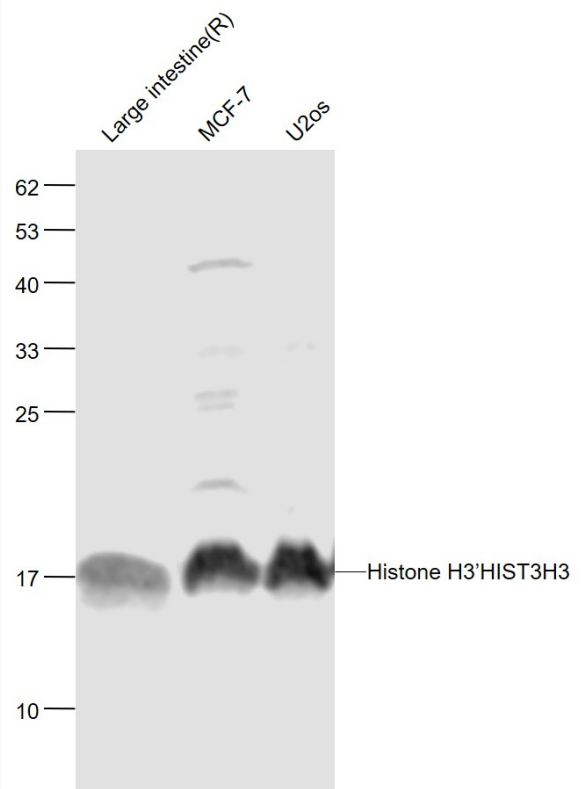
NIH/3T3(Mouse) Cell Lysate at 30 ug

Primary: Anti- Histone H3/HIST3H3 (SLM-33042M) at 1/1000 dilution

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

Predicted band size: 15 kD

Observed band size: 15 kD



Sample:

Large intestine(Rat) Lysate at 40 ug

MCF-7(Human) Cell Lysate at 30 ug

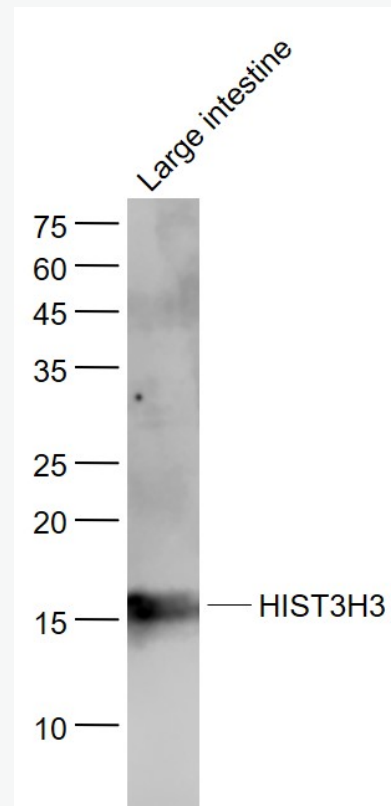
U2os(Human) Cell Lysate at 30 ug

Primary: Anti-Histone H3/HIST3H3 (SLM-33042M) at 1/1000 dilution

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

Predicted band size: 15 kD

Observed band size: 15 kD



Sample:

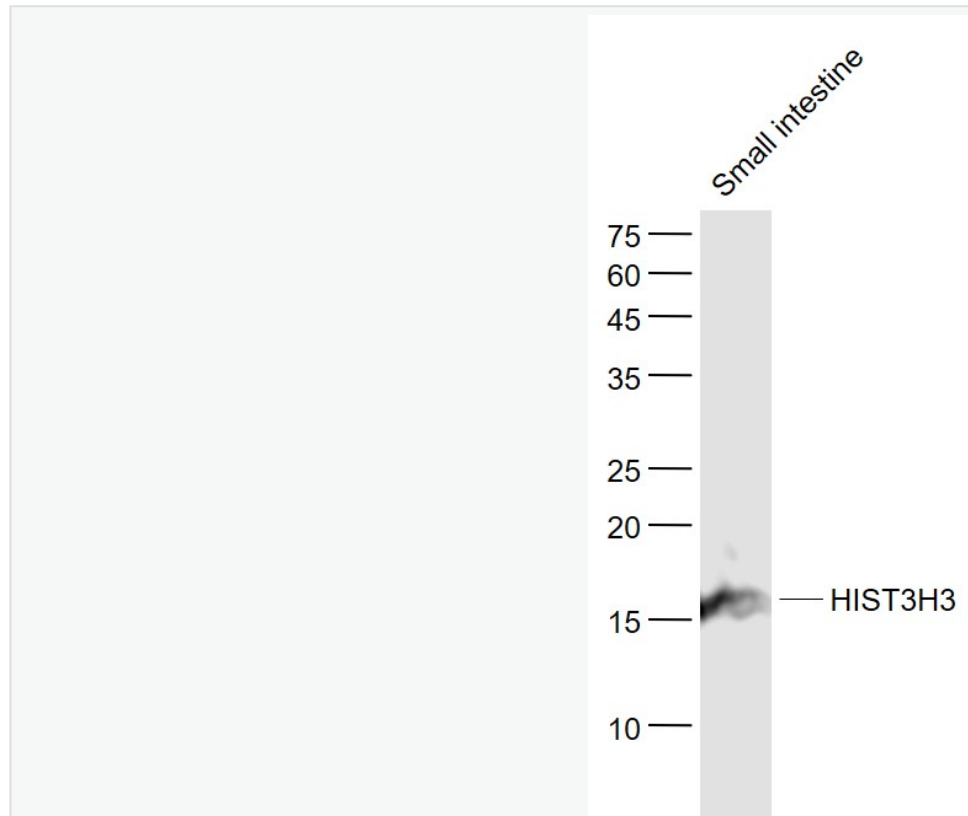
Large intestine (Mouse) Lysate at 40 ug

Primary: Anti- Histone H3/HIST3H3 (SLM-33042M) 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:

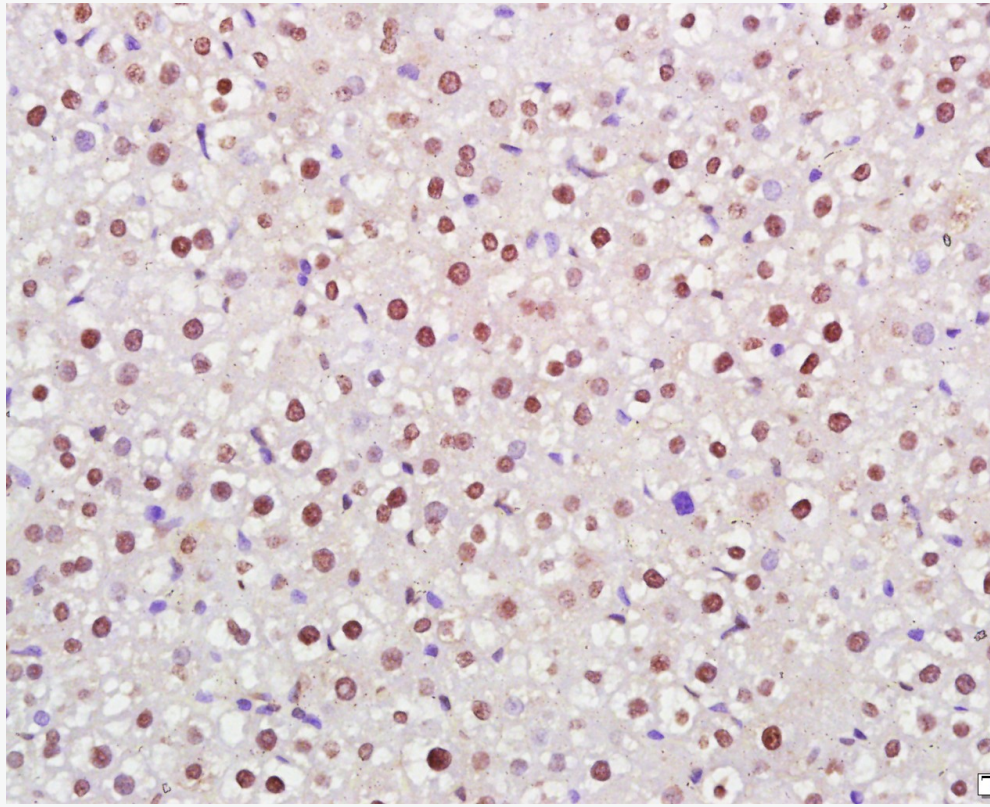
Small intestine (Mouse) Lysate at 40 ug

Primary: Anti- Histone H3/HIST3H3 (SLM-33042M) at 1/1000 dilution

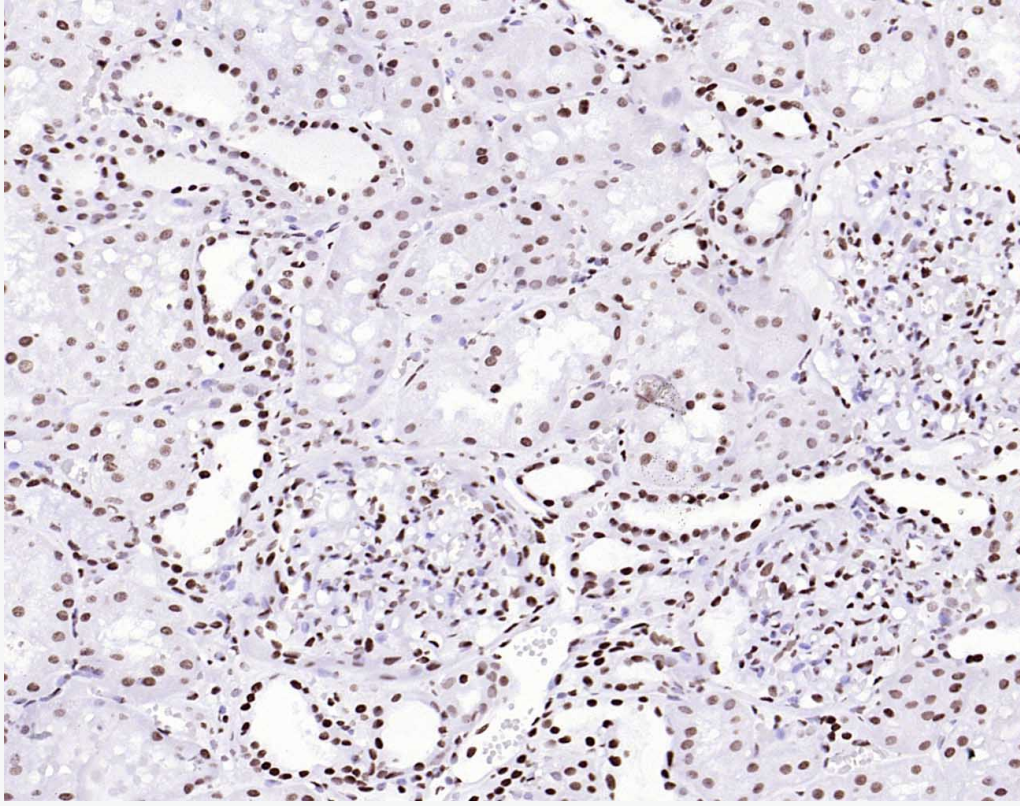
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 15 kD

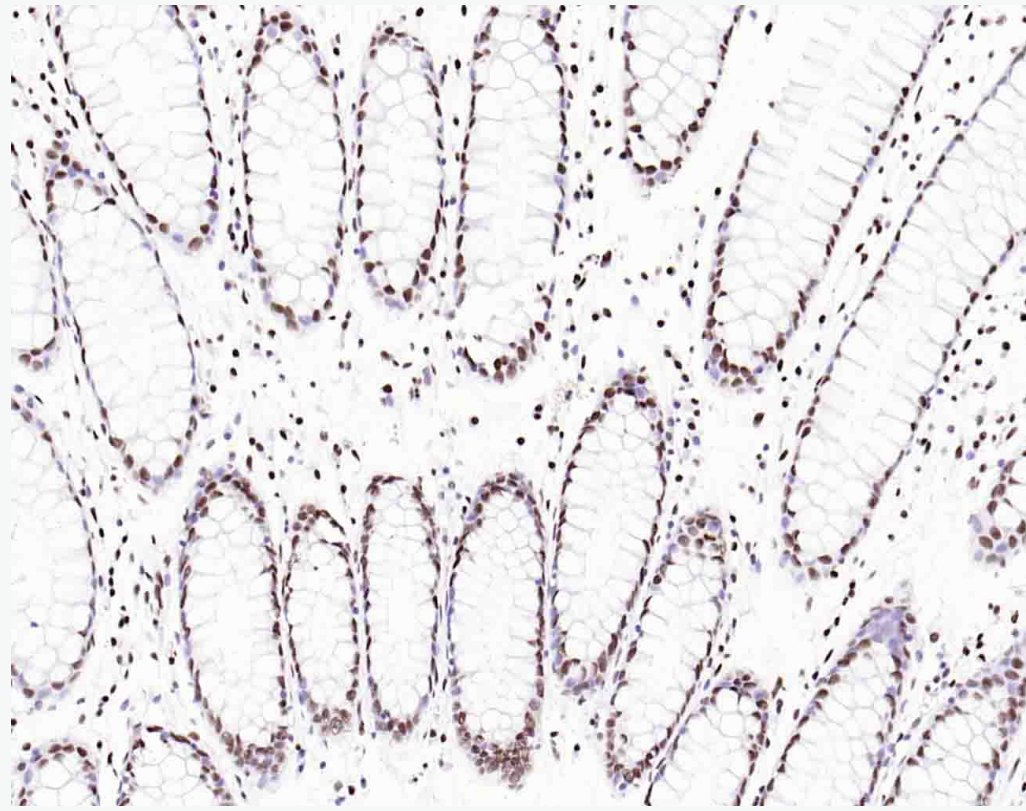
Observed band size: 15 kD



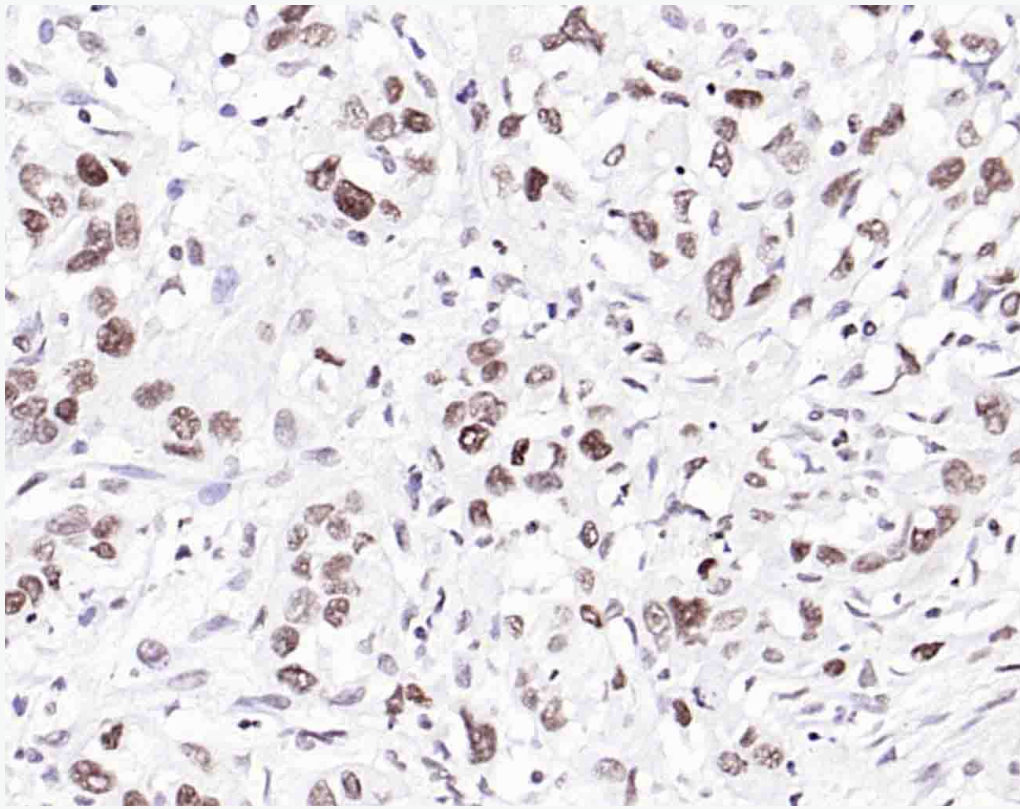
Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100, 0.1% Tween-20 in PBS) at 37°C for 30min; Antibody incubation with (HIST3H3) Monoclonal Antibody, Unconjugated (SLM-33042M) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 1 hour at 37°C for staining.



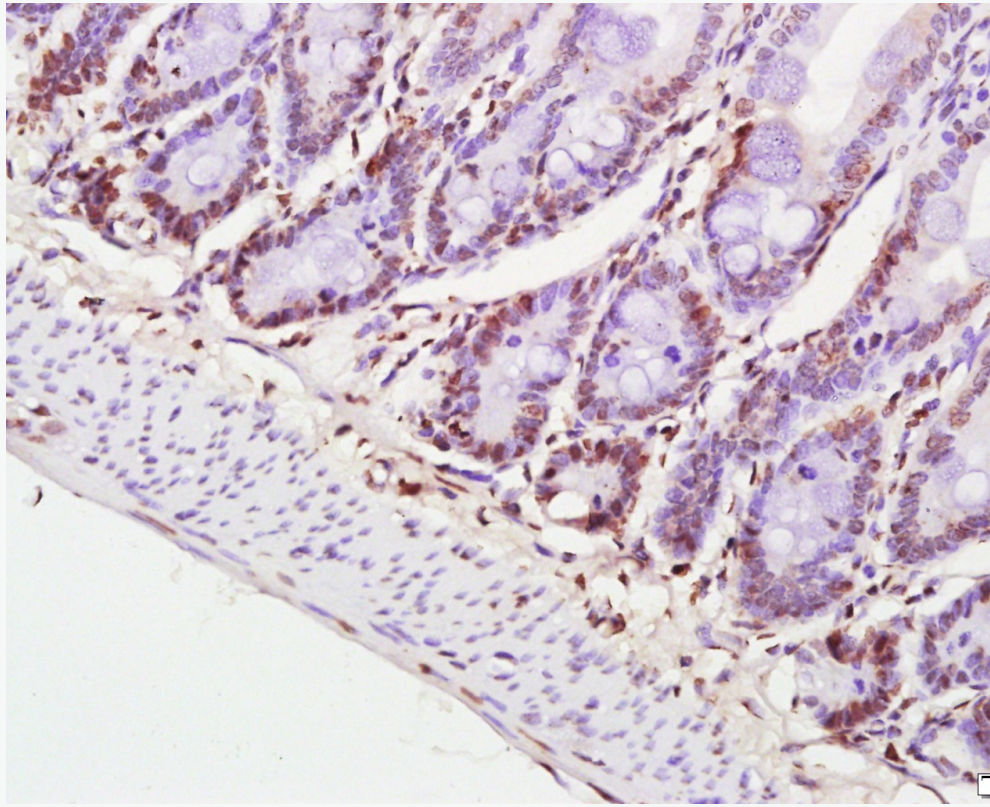
Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Block non-specific binding by 3% goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the instructions of the DAB staining Kit(Mouse)(sp-0024) instructions and DAB staining.



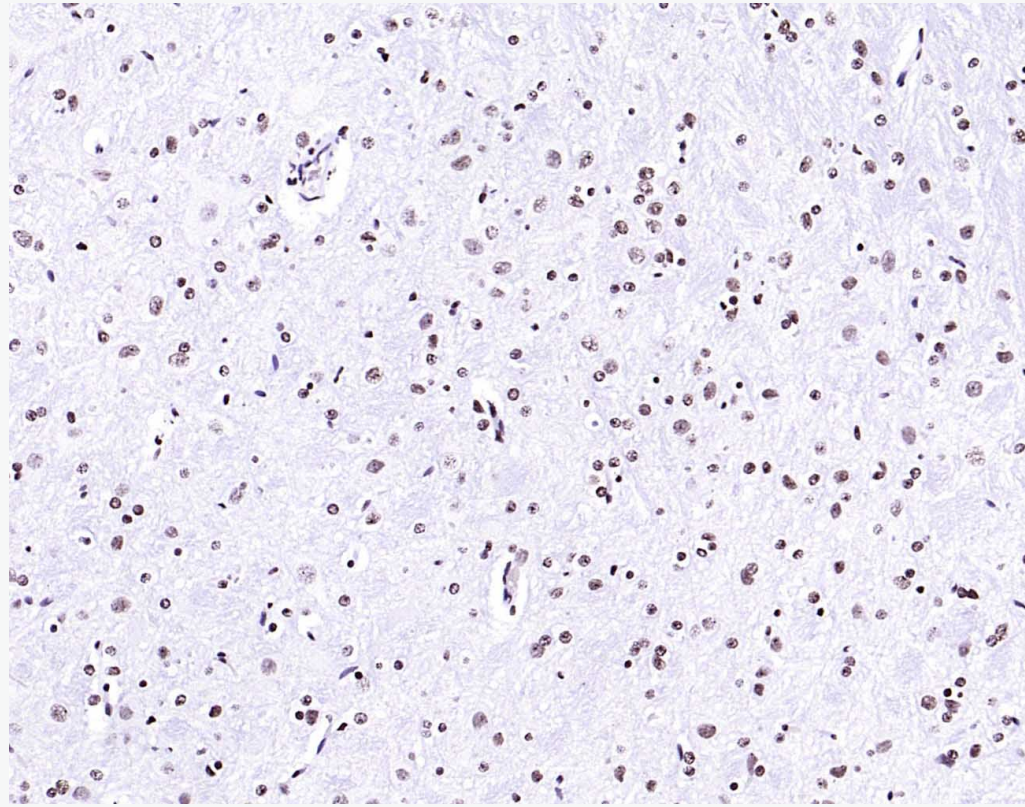
Paraformaldehyde-fixed, paraffin embedded (human colon); Antigen retrieval by boiling in so (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Cont Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating acc Kit(Mouse)(sp-0024) instructions and DAB staining.



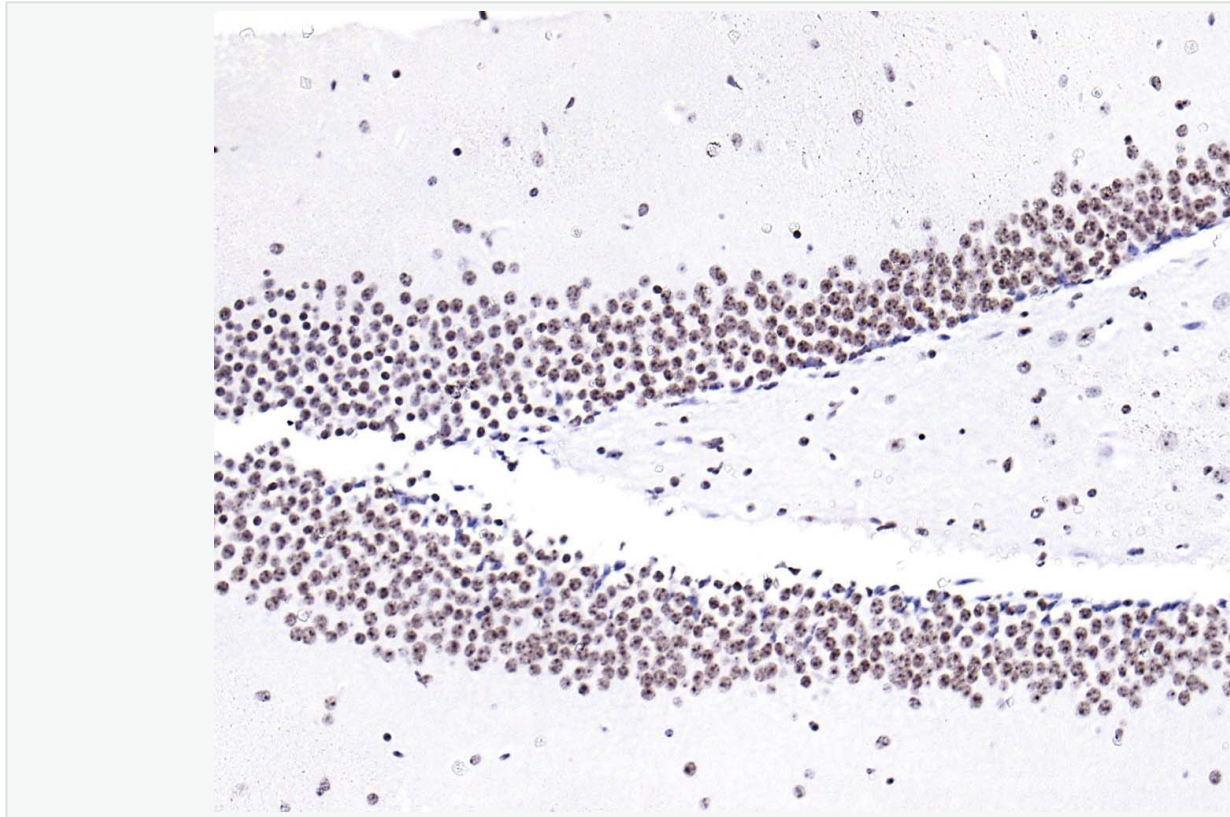
Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by b
buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min
(normal goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Load
Monoclonal Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by
SP Kit(Mouse)(sp-0024) instructions and DAB staining.



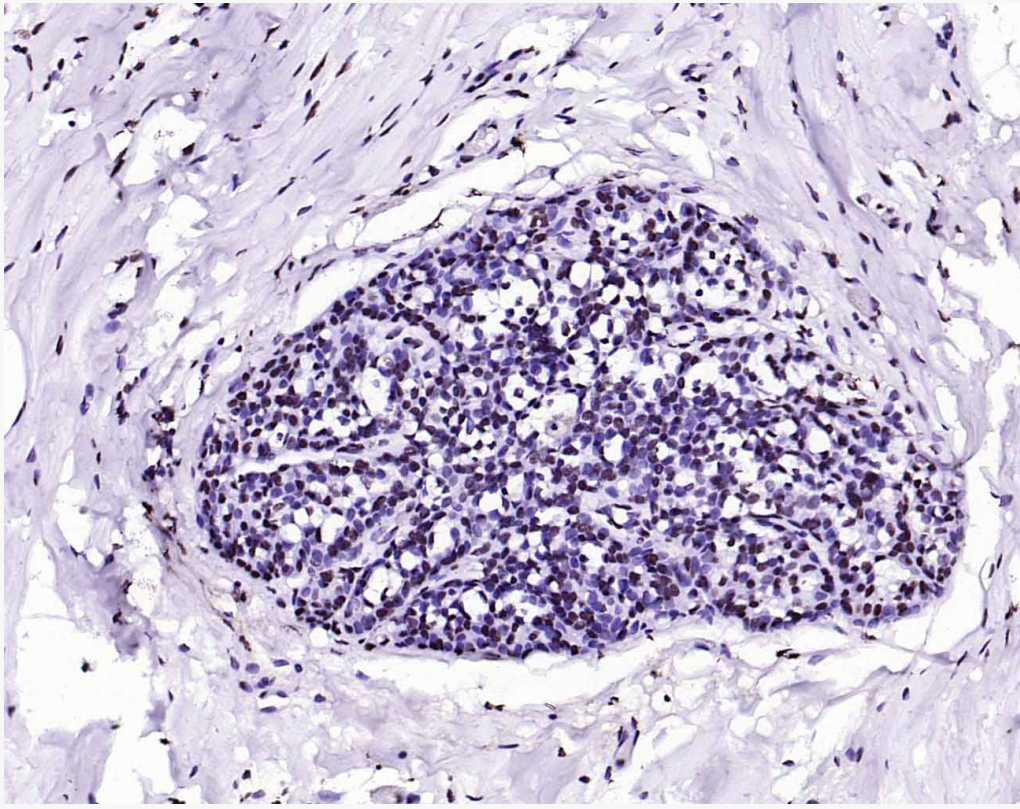
Paraformaldehyde-fixed, paraffin embedded (Rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100, 0.1% Tween-20 in PBS) at 37°C for 30min; Antibody incubation with (HIST3H3) Monoclonal Antibody, Unconjugated (SLM-33042M) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 1 hour at 37°C for staining.



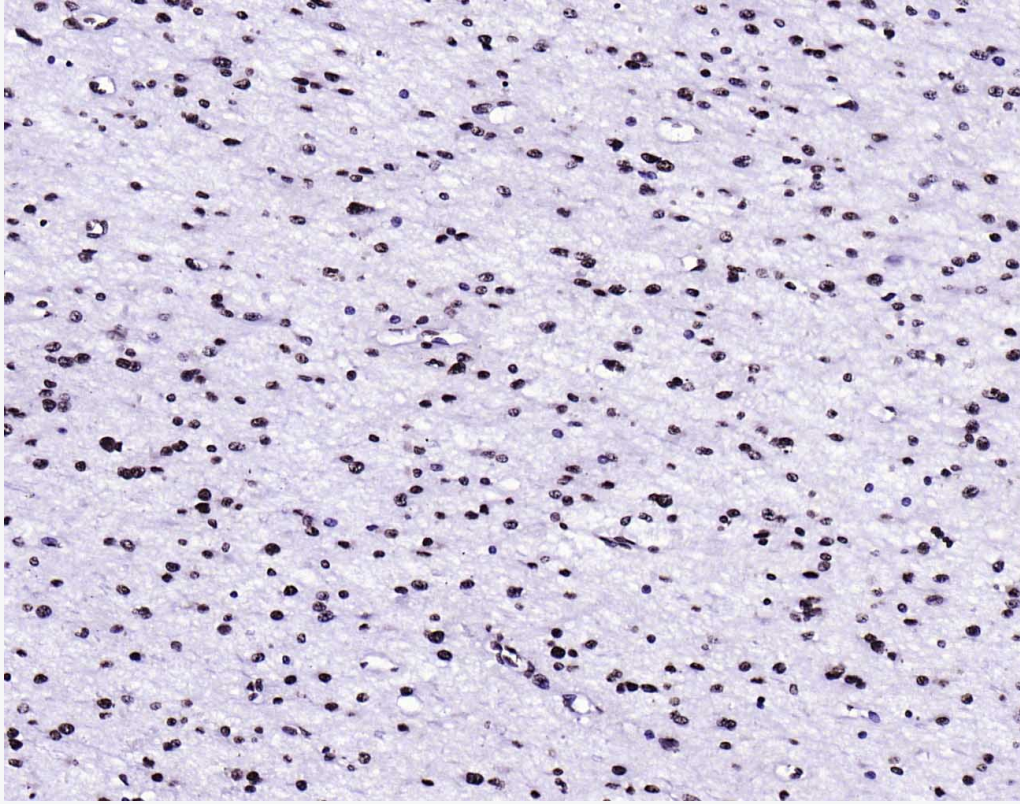
Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100 in PBS) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control)) (Abcam) at 37°C for 30min; Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to SLM-33042M instructions and DAB staining.



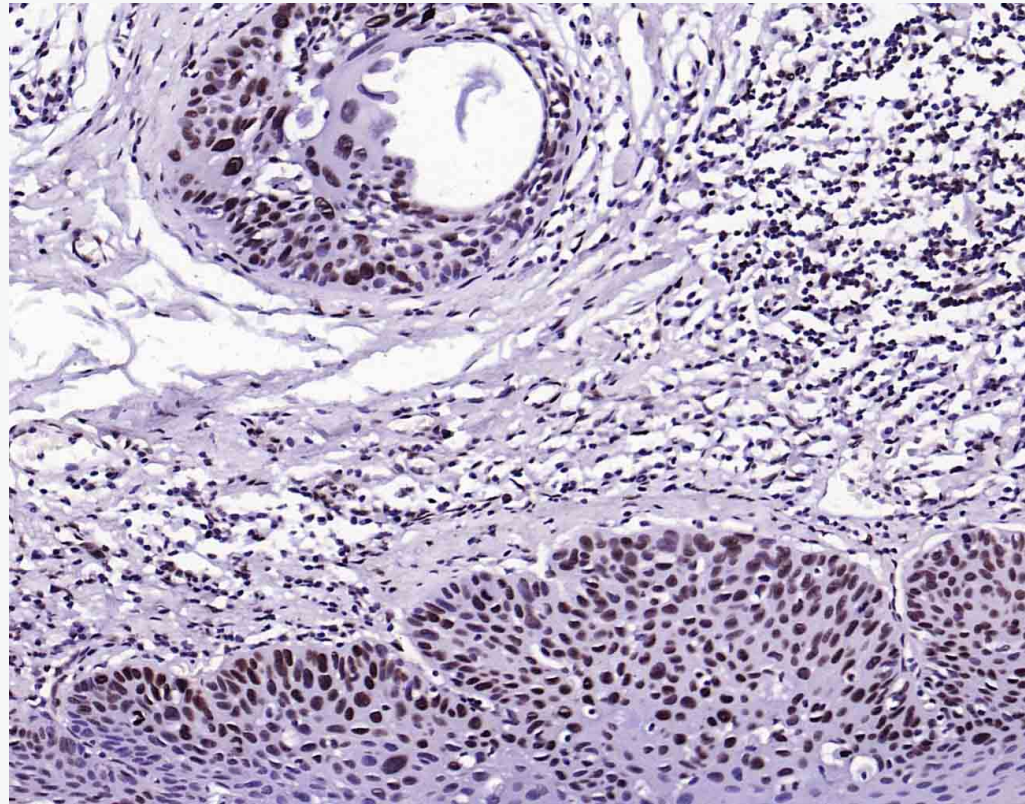
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in so (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Cont Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating acc Kit(Mouse)(sp-0024) instructions and DAB staining.



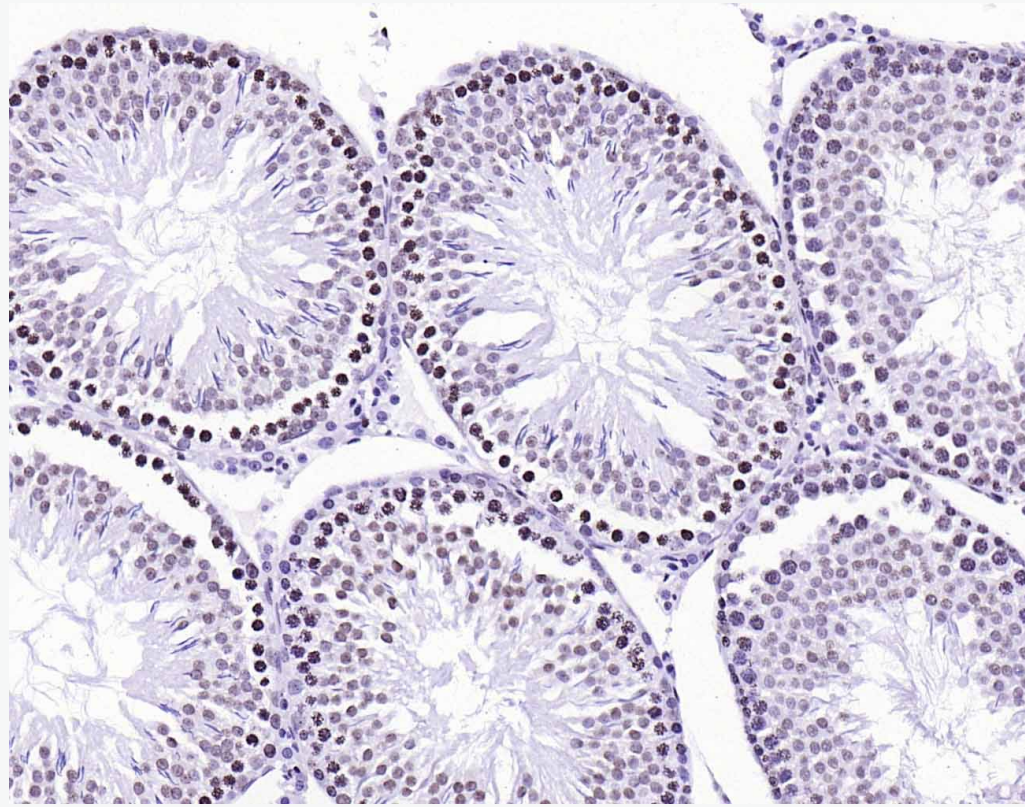
Paraformaldehyde-fixed, paraffin embedded (human breast carcinoma); Antigen retrieval by b
buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min
(normal goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Load
Monoclonal Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by
SP Kit(Mouse)(sp-0024) instructions and DAB staining.



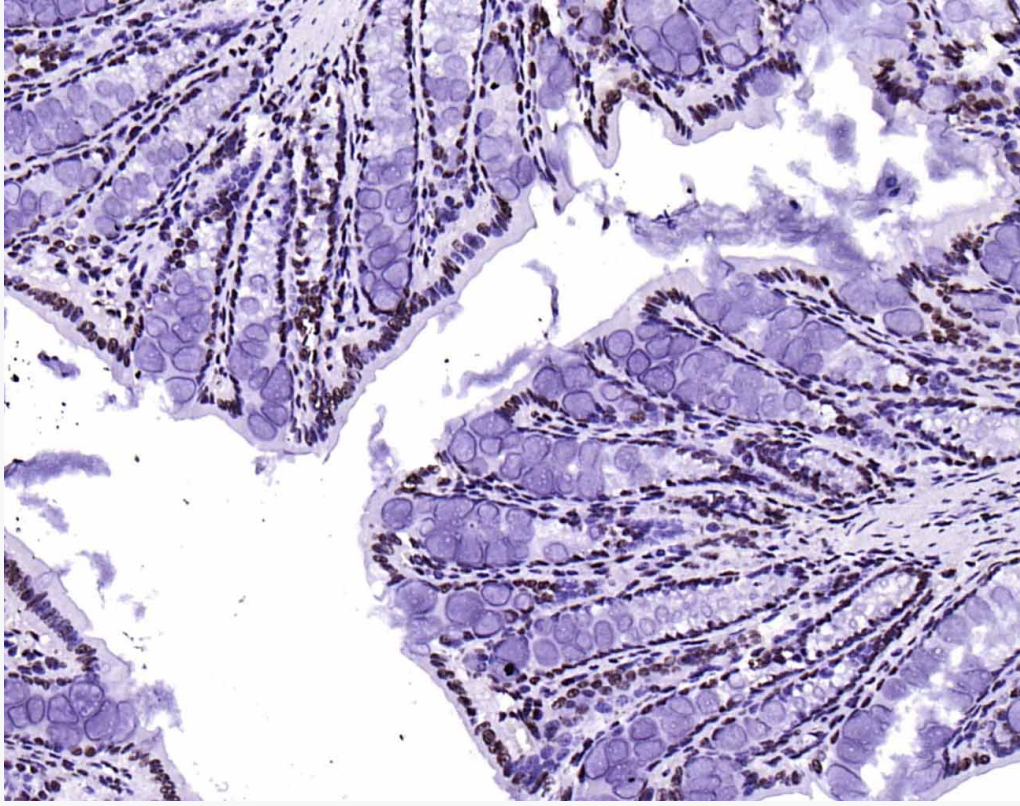
Paraformaldehyde-fixed, paraffin embedded (human brain); Antigen retrieval by boiling in so (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B (goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the Kit(Mouse)(sp-0024) instructions and DAB staining.



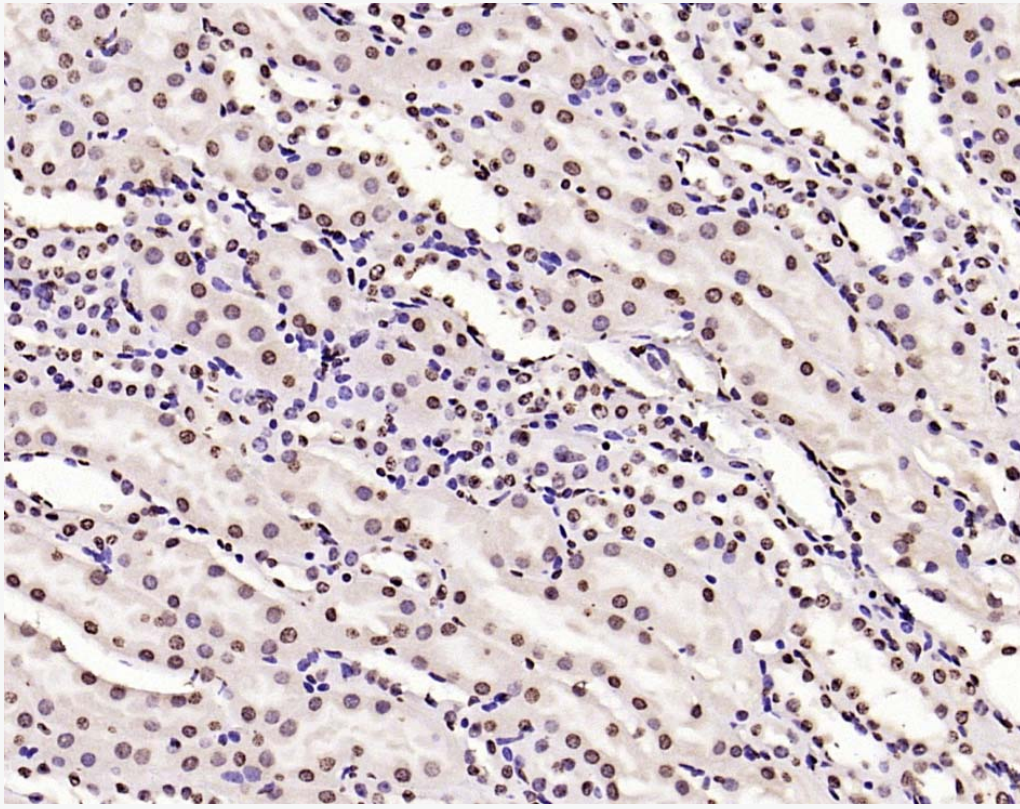
Paraformaldehyde-fixed, paraffin embedded (human laryngeal carcinoma); Antigen retrieval by citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 30min; Block non-specific binding by citrate buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nucleosome) Monoclonal Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by DAB staining using SP Kit(Mouse)(sp-0024) instructions and DAB staining.



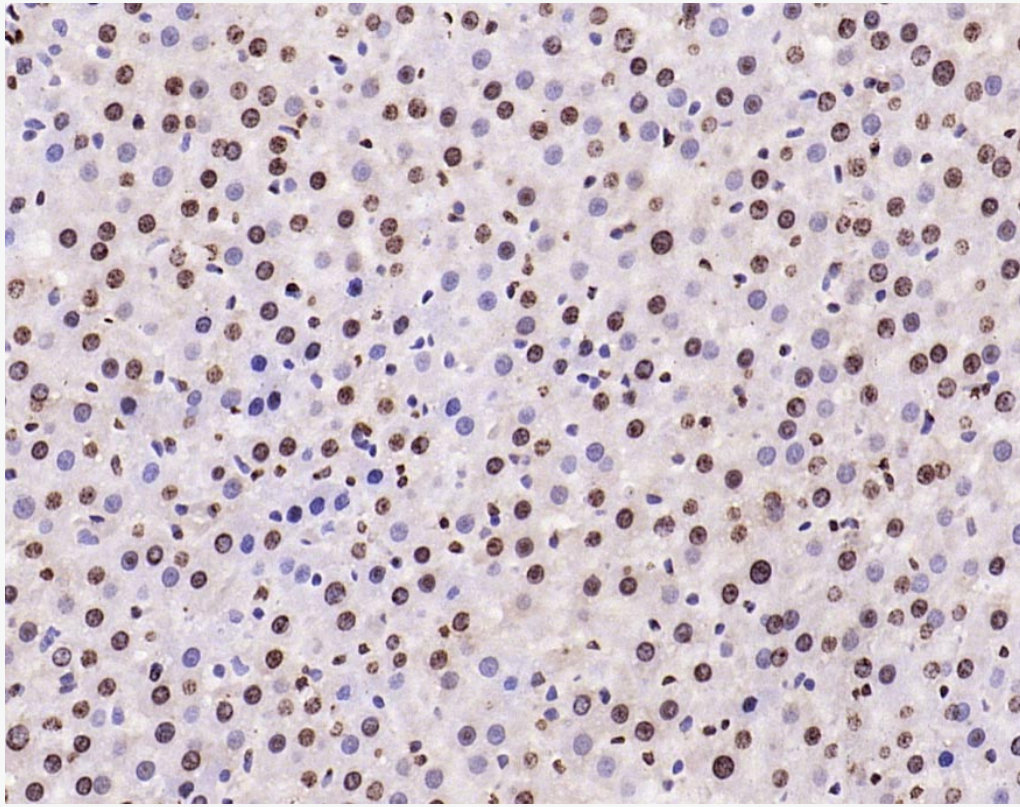
Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (BSA) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control)) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control)) Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to SLM-33042M instructions and DAB staining.



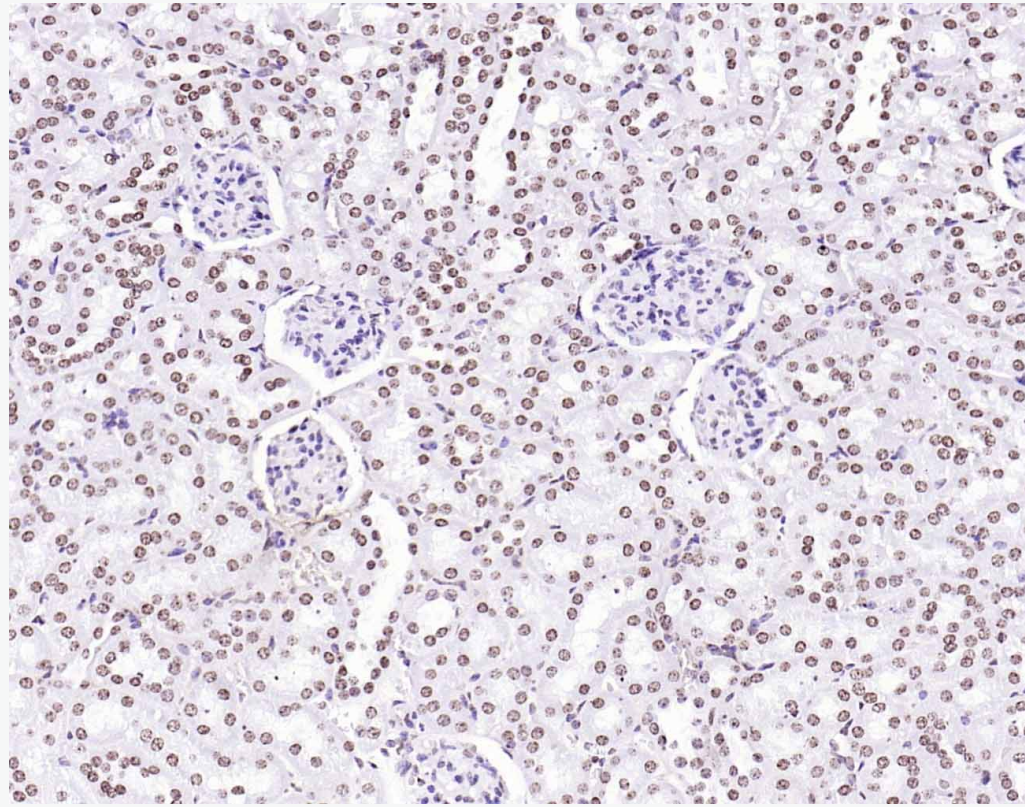
Paraformaldehyde-fixed, paraffin embedded (mouse colon); Antigen retrieval by boiling in so (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Cont Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating acc Kit(Mouse)(sp-0024) instructions and DAB staining.



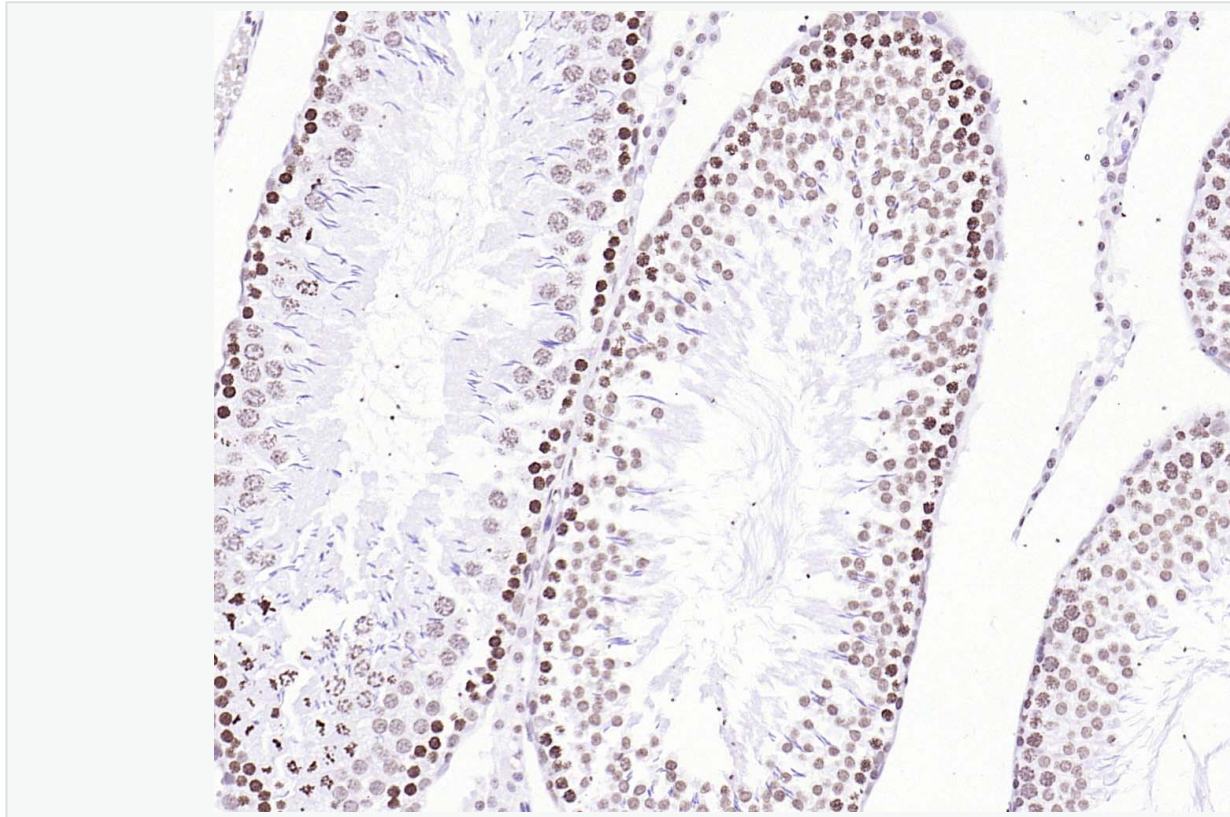
Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100, 0.5% Tween-20 in PBS) at 37°C for 30min; Antibody incubation with (Histone H3 HIST3H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the DAB staining Kit(Mouse)(sp-0024) instructions and DAB staining.



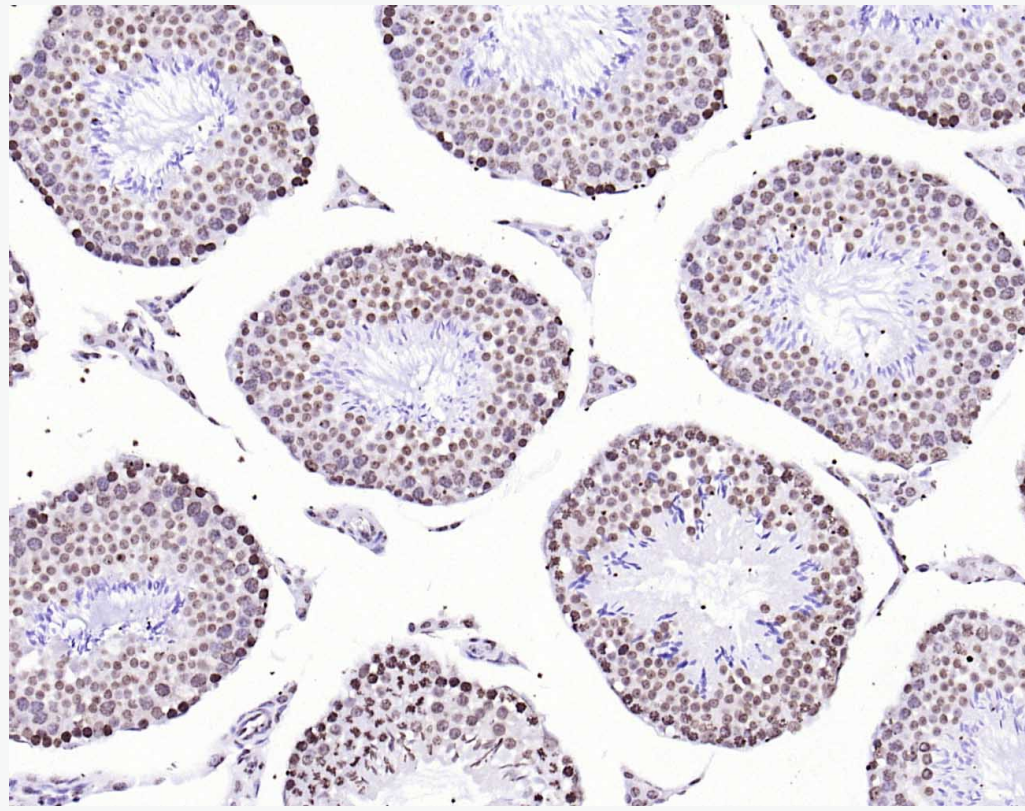
Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100, 0.1% Tween-20 in PBS) at 37°C for 30min; Antibody incubation with (Histone H3 HIST3H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the DAB staining Kit(Mouse)(sp-0024) instructions and DAB staining.



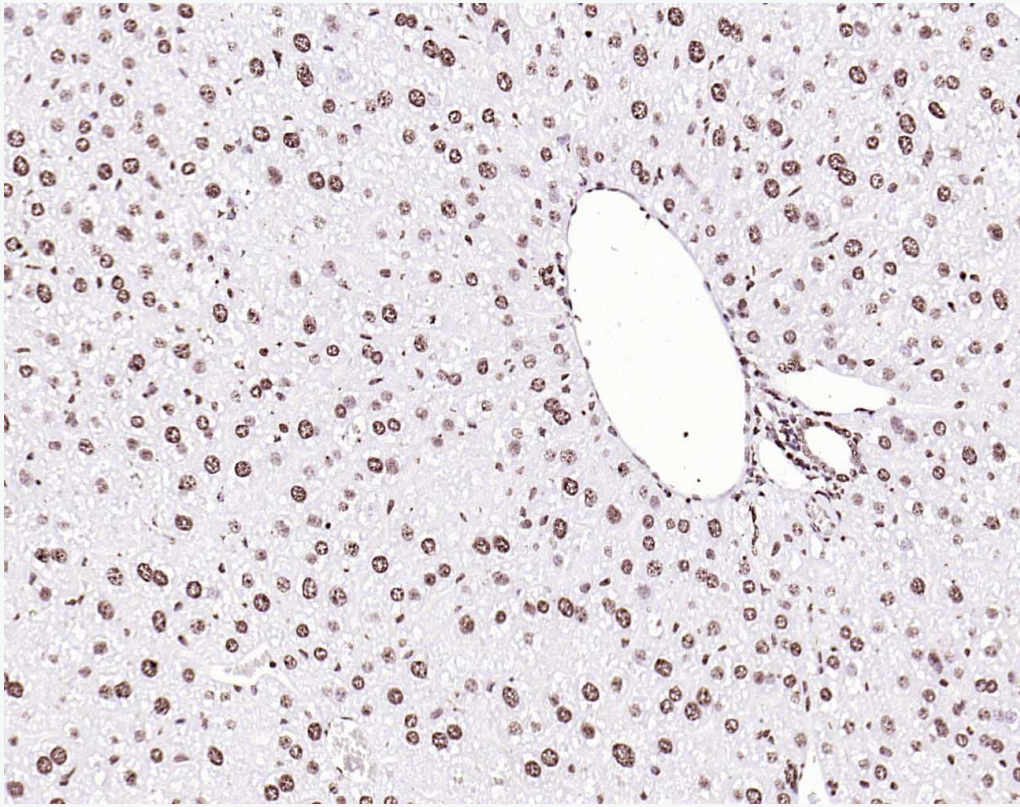
Paraformaldehyde-fixed, paraffin embedded (mouse kidney); Antigen retrieval by boiling in s (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B (goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to Kit(Mouse)(sp-0024) instructions and DAB staining.



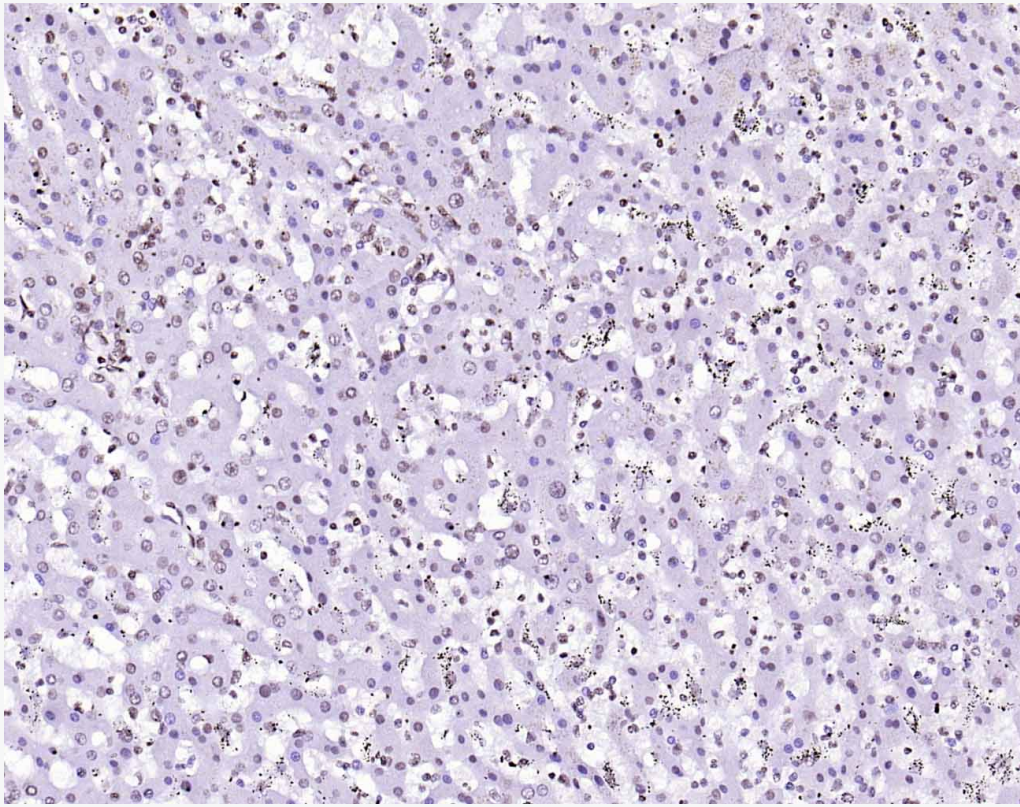
Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.1% Triton X-100 in PBS) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control)) (1:1000) at 37°C for 30min; Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the instructions and DAB staining.



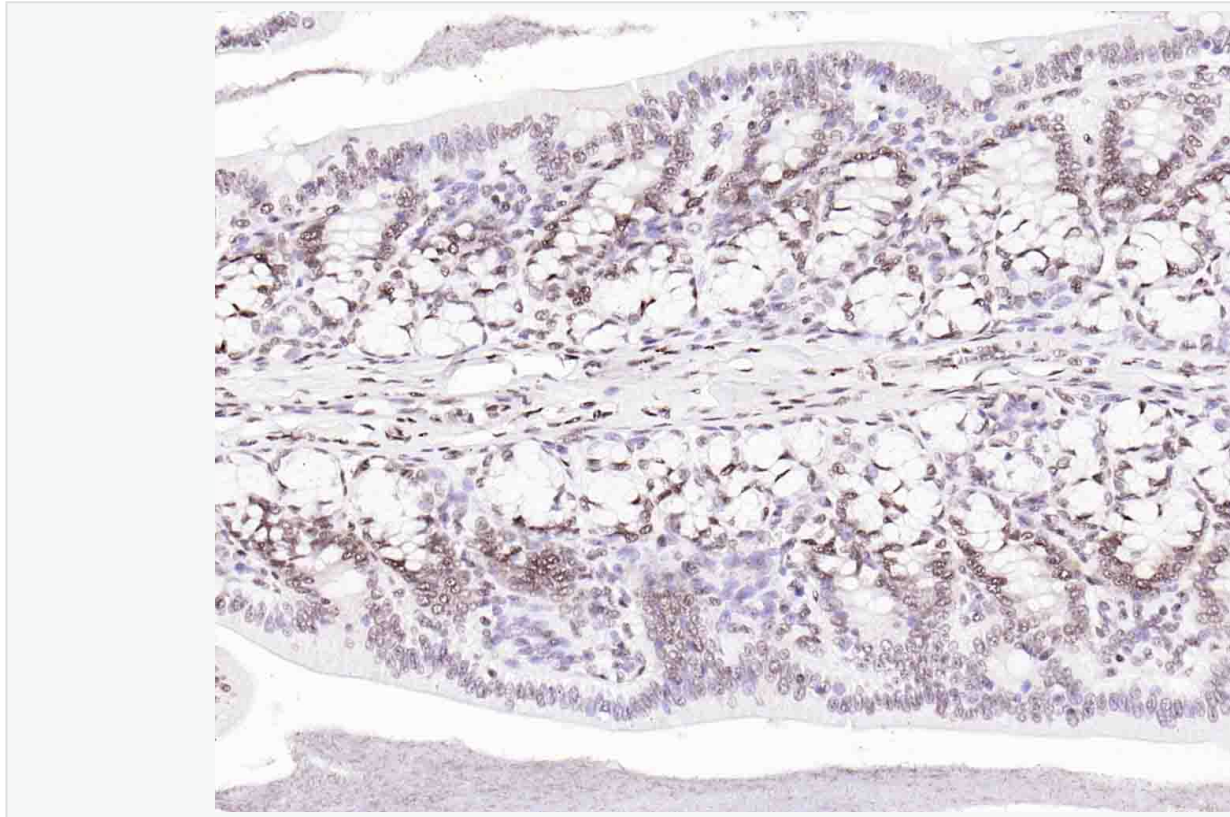
Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in so (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; B goat serum) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Cont Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating acc Kit(Mouse)(sp-0024) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Block non-specific binding by 3% goat serum at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the instructions of the DAB staining Kit(Mouse)(sp-0024) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Block non-specific binding by 3% goat serum at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control) Antibody, Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to the instructions of the DAB staining Kit(Mouse)(sp-0024) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH 6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking solution (1% bovine serum albumin, 0.5% Triton X-100, 0.1% Tween-20 in PBS) at 37°C for 30min; Antibody incubation with (Histone H3 (Nuclear Loading Control)) (Abcam) at 37°C for 30min; Unconjugated (SLM-33042M) at 1:200 overnight at 4°C, followed by operating according to SLM-33042M instructions and DAB staining.