

# Anti-Histone H3 (mono methyl K18) Antibody [SA42-07] ET1601-14



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IF-Tissue, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 15 kDa
<b>Clone number:</b>	SA42-07

**Description:** Histone H3 is one of the five main histones involved in the structure of chromatin in eukaryotic cells. Featuring a main globular domain and a long N-terminal tail, H3 is involved with the structure of the nucleosomes of the 'beads on a string' structure. Histone proteins are highly post-translationally modified however Histone H3 is the most extensively modified of the five histones. The term "Histone H3" alone is purposely ambiguous in that it does not distinguish between sequence variants or modification state. Histone H3 is an important protein in the emerging field of epigenetics, where its sequence variants and variable modification states are thought to play a role in the dynamic and long term regulation of genes.

**Immunogen:** Synthetic peptide within Human Histone H3 aa 1-50 / 136 (mono methyl K18) conjugated to Keyhole Limpet Haemocyanin (KLH).

**Positive control:** HepG2 cell lysates, mouse testis tissue lysates, HepG2, PC-3M, human colon tissue, mouse testis tissue, mouse kidney tissue.

**Subcellular location:** Nucleus, Chromosome

**Database links:** SwissProt: P68431 Human | P84243 Human | Q71DI3 Human | Q16695 Human | Q6NXT2 Human | P68433 Mouse | Q6LED0 Rat

#### Recommended Dilutions:

<b>WB</b>	1:500-1:5,000
<b>IF-Cell</b>	1:50
<b>IF-Tissue</b>	1:50
<b>IHC-P</b>	1:50-1:1,000

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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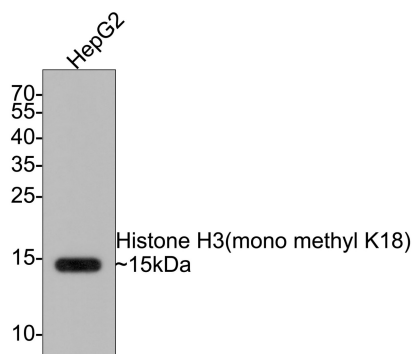
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## Images



**Fig1:** Western blot analysis of Histone H3 (mono methyl K18) on HepG2 cell lysates with Rabbit anti-Histone H3 (mono methyl K18) antibody (ET1601-14) at 1/500 dilution.

Lysates/proteins at 10 µg/Lane.

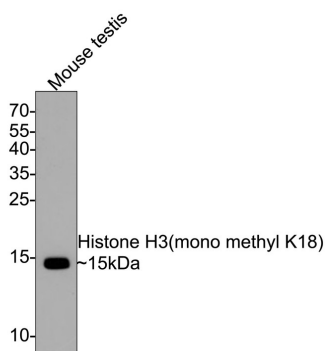
Predicted band size: 15 kDa

Observed band size: 15 kDa

Exposure time: 2 minutes;

15% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (ET1601-14) at 1/500 dilution was used in 5% NFDm/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.



**Fig2:** Western blot analysis of Histone H3 (mono methyl K18) on mouse testis tissue lysates with Rabbit anti-Histone H3 (mono methyl K18) antibody (ET1601-14) at 1/5,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 15 kDa

Observed band size: 15 kDa

Exposure time: 1 minute;

15% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (ET1601-14) at 1/5,000 dilution was used in 5% NFDm/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

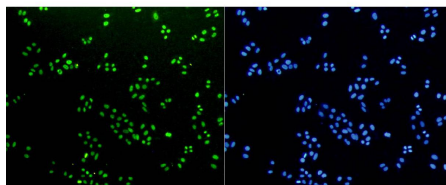
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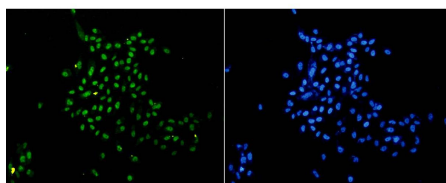
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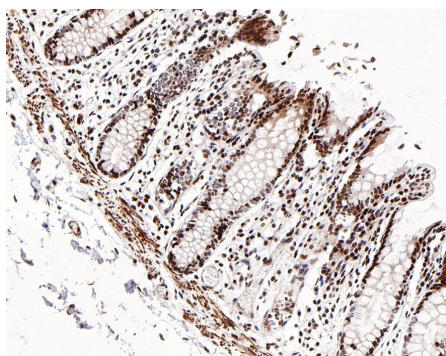
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**Fig3:** ICC staining Histone H3 (mono methyl K18) in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

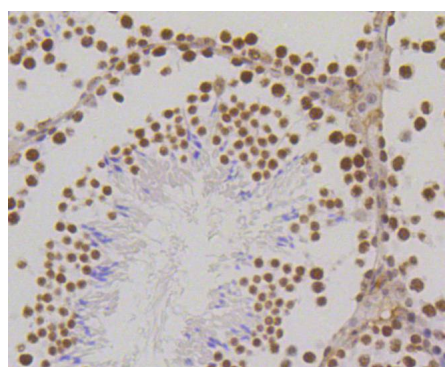


**Fig4:** ICC staining Histone H3 (mono methyl K18) in PC-3M cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

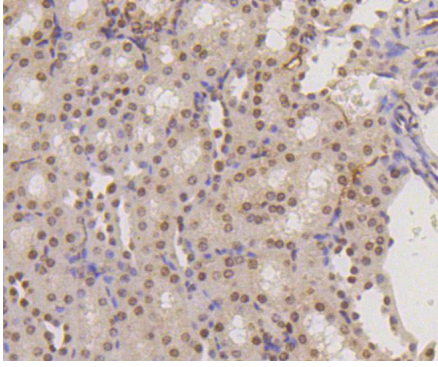


**Fig5:** Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-Histone H3 (mono methyl K18) antibody (ET1601-14) at 1/1,000 dilution.

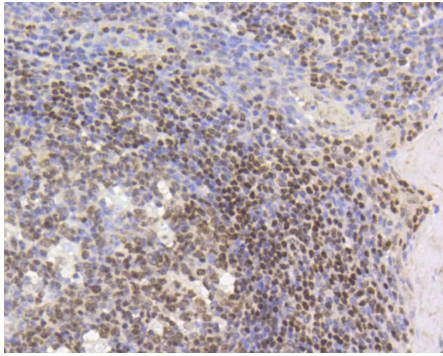
The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1601-14) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig6:** Immunohistochemical analysis of paraffin-embedded mouse testis tissue using anti-Histone H3 (mono methyl K18) antibody. Counter stained with hematoxylin.



**Fig7:** Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-Histone H3 (mono methyl K18) antibody. Counter stained with hematoxylin.



**Fig8:** Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-Histone H3 (mono methyl K18) antibody. Counter stained with hematoxylin.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. The human and mouse replication-dependent histone genes." Marzluff W.F. Gongidi P., Woods K.R. et al. Genomics 80:487-498(2002).
2. Functional characterization of a human histone gene cluster duplication." Braastad C.D. Hovhannisyanyan H., van Wijnen A.J. et al. Gene 342:35-40(2004).

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