bsm-33042M **[Primary Antibody]**

H3C1 | Histone H3 Mouse mAb, Nuclear Loading Control

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DATASHEET

Host: Mouse
Isotype: IgG
Clonality: Monoclonal
CloneNo.: 3G1
GeneID: 8350
SWISS: P68431
Target: H3C1 | Histone H3
Purification: affinity purified by Protein G
Concentration: 1mg/ml
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

Applications:
WB (1:2000-20000)
IHC-P (1:1000-2000)
IHC-F (1:1000-2000)
IF (1:100-500)
IP (1:50-200)
ChIP (5μg/IP)

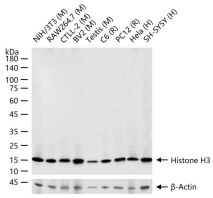
Reactivity: Human, Mouse, Rat (predicted: Cow, Hamster, Bee, Yeast, Caenorhabditis Elegans)

Predicted MW.: 15 kDa

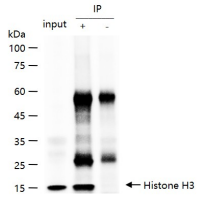
Observed MW.: 15 kDa

Subcellular Location: Nucleus

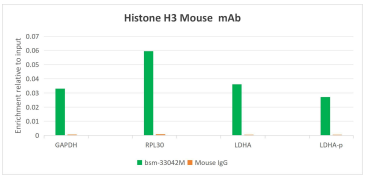
VALIDATION IMAGES



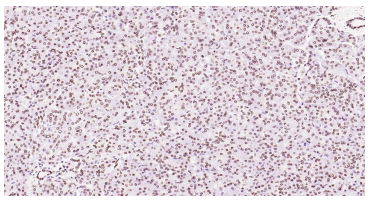
25 ug total protein per lane of various lysates (see on figure) probed with Histone H3 monoclonal antibody, unconjugated (bsm-33042M) at 1:2000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



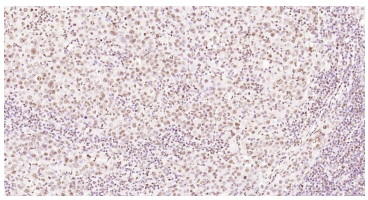
Histone H3 was immunoprecipitated from Jurkat cell lysate with bsm-33042M at 1/150 dilution. Western blot was performed from the immunoprecipitate using protein A/G beads. HRP conjugated Goat Anti-Mouse IgG (H&L) was used as secondary antibody. Lane 1: Jurkat cell lysate (Input). Lane 2: bsm-33042M IP in Jurkat cell lysate. Lane 3: native mouse IgG IP in Jurkat cell lysate (negative control).



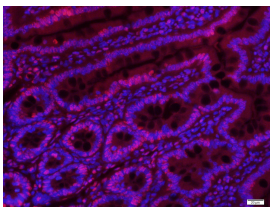
Chromatin immunoprecipitation was performed using cross-linked chromatin from 5×10⁶ HeLa cells per IP, with 5 μg of bsm-33042M antibody or 5 μg of normal mouse IgG(negative control bs-0296P) , and 20 μL of Protein A/G MagBeads per IP. The immunoprecipitated DNA was quantified by real-time PCR using primers specific for the human GAPDH-CDS, RPL30 exon 4, LDHA and LDHA-promoter regions. The data are presented as enrichment of each sample relative to the total amount of input at each amplicon.



Paraformaldehyde-fixed, paraffin embedded Human Pancreas; Antigen retrieval by boiling



Paraformaldehyde-fixed, paraffin embedded Human Gastric Cancer; Antigen retrieval by

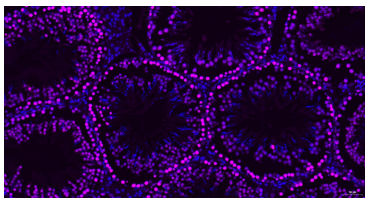


Paraformaldehyde-fixed, paraffin embedded (Rat colon); Antigen retrieval by boiling in

in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Histone H3 Monoclonal Antibody, Unconjugated (ascites of bsm-33042M) at 1:1500 overnight at 4°C, followed by conjugation to the bs-40296G-HRP and DAB (C-0010) staining.

boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Histone H3 Monoclonal Antibody, Unconjugated (ascites of bsm-33042M) at 1:1500 overnight at 4°C, followed by conjugation to the bs-40296G-HRP and DAB (C-0010) staining.

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/HIST3H3) Monoclonal Antibody, Unconjugated (bsm-33042M) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (bs-0296G-cy3) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded Rat testis; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with Histone H3 Monoclonal Antibody, Unconjugated (bsm-33042M) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Mouse IgG antibody (Purple, bs-0296G-Cy5), DAPI (blue, C02-04002) was used to stain the cell nuclei.

SELECTED CITATIONS

- **[IF=15.7]** Tan Xinwei. et al. PsAvh109 suppresses SA-triggered immunity by mimicking TPL function to disrupt mediator complex assembly. NAT COMMUN. 2026 Apr;17(1):3486 WB ;N. benthamiana. 41986337
- **[IF=11.7]** Shuai Yang. et al.LTA4H improves the tumor microenvironment andprevents HCC progression via targeting theHNRNPA1/LTBP1/TGF-b axis.Cell Reports Medicine.2025 Mar 2:102000. Western blot ;Mouse. 40056904
- **[IF=7.525]** Chu Xuan. et al. DNMT3A R882H mutation drives daunorubicin resistance in acute myeloid leukemia via regulating NRF2/NQO1 pathway. CELL COMMUN SIGNAL. 2022 Dec;20(1):1-14 WB ;Human. 36303144
- **[IF=4.96]** Chen L et al. Perillaldehyde: a promising antifungal agent to treat oropharyngeal candidiasis Biochem Pharmacol. 2020 Aug 18;114201. WB ;mouse. 32822688
- **[IF=4.96]** Lei Chen. et al. Perillaldehyde: A promising antifungal agent to treat oropharyngeal candidiasis. Biochem Pharmacol. 2020 Oct;180:114201 WB ;Mouse. 32822688