

Anti-Histone H3 (phospho T3) antibody [EP1702Y] ab78351

リコンビナント **RabMAb**

10 References 画像数 5

製品の概要

| | |
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| 製品名 | Anti-Histone H3 (phospho T3) antibody [EP1702Y] |
| 製品の詳細 | Rabbit monoclonal [EP1702Y] to Histone H3 (phospho T3) |
| 由来種 | Rabbit |
| 特異性 | This antibody detects Histone H3 phosphorylated at Threonine 3. Species cross reactivity was determined by western blot only. No signal was detected in the following Mouse and Rat tissues lysates: brain, heart, kidney, and spleen. |
| アプリケーション | 適用あり: Flow Cyt (Intra), WB, IHC-P, ICC/IF |
| 種交差性 | 交差種: Human |
| 免疫原 | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| ポジティブ・コントロール | HeLa whole cell lysate (ab150035). Human breast carcinoma tissue. |
| 特記事項 | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> |

製品の特性

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| 製品の状態 | Liquid |
| 保存方法 | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| バッファー | <p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p> |

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| 精製度 | Protein A purified |
| ポリ/モノ | モノクローナル |
| クローン名 | EP1702Y |
| アイソタイプ | IgG |

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab78351の使用に適用されます
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

| アプリケーション | Abreviews | 特記事項 |
|------------------|-----------|---|
| Flow Cyt (Intra) | | 1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |
| WB | | 1/500000 - 1/1e+006. Detects a band of approximately 14 kDa (predicted molecular weight: 16 kDa). |
| IHC-P | | 1/100 - 1/250. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. |
| ICC/IF | | 1/100 - 1/250. |

ターゲット情報

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| 機能 | 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. |
| 配列類似性 | Belongs to the histone H3 family. |
| 発生段階 | Expressed during S phase, then expression strongly decreases as cell division slows down during the process of differentiation. |
| 翻訳後修飾 | <p>Acetylation is generally linked to gene activation. Acetylation on Lys-10 (H3K9ac) impairs methylation at Arg-9 (H3R8me2s). Acetylation on Lys-19 (H3K18ac) and Lys-24 (H3K24ac) favors methylation at Arg-18 (H3R17me).</p> <p>Citrullination at Arg-9 (H3R8ci) and/or Arg-18 (H3R17ci) by PAD4 impairs methylation and represses transcription.</p> <p>Asymmetric dimethylation at Arg-18 (H3R17me2a) by CARM1 is linked to gene activation. Symmetric dimethylation at Arg-9 (H3R8me2s) by PRMT5 is linked to gene repression. Asymmetric dimethylation at Arg-3 (H3R2me2a) by PRMT6 is linked to gene repression and is mutually exclusive with H3 Lys-5 methylation (H3K4me2 and H3K4me3). H3R2me2a is present at the 3' of genes regardless of their transcription state and is enriched on inactive promoters, while it is absent on active promoters.</p> <p>Methylation at Lys-5 (H3K4me), Lys-37 (H3K36me) and Lys-80 (H3K79me) are linked to gene activation. Methylation at Lys-5 (H3K4me) facilitates subsequent acetylation of H3 and H4.</p> |

Methylation at Lys-80 (H3K79me) is associated with DNA double-strand break (DSB) responses and is a specific target for TP53BP1. Methylation at Lys-10 (H3K9me) and Lys-28 (H3K27me) are linked to gene repression. Methylation at Lys-10 (H3K9me) is a specific target for HP1 proteins (CBX1, CBX3 and CBX5) and prevents subsequent phosphorylation at Ser-11 (H3S10ph) and acetylation of H3 and H4. Methylation at Lys-5 (H3K4me) and Lys-80 (H3K79me) require preliminary monoubiquitination of H2B at 'Lys-120'. Methylation at Lys-10 (H3K9me) and Lys-28 (H3K27me) are enriched in inactive X chromosome chromatin.

Phosphorylated at Thr-4 (H3T3ph) by GSG2/haspin during prophase and dephosphorylated during anaphase. Phosphorylation at Ser-11 (H3S10ph) by AURKB is crucial for chromosome condensation and cell-cycle progression during mitosis and meiosis. In addition phosphorylation at Ser-11 (H3S10ph) by RPS6KA4 and RPS6KA5 is important during interphase because it enables the transcription of genes following external stimulation, like mitogens, stress, growth factors or UV irradiation and result in the activation of genes, such as c-fos and c-jun.

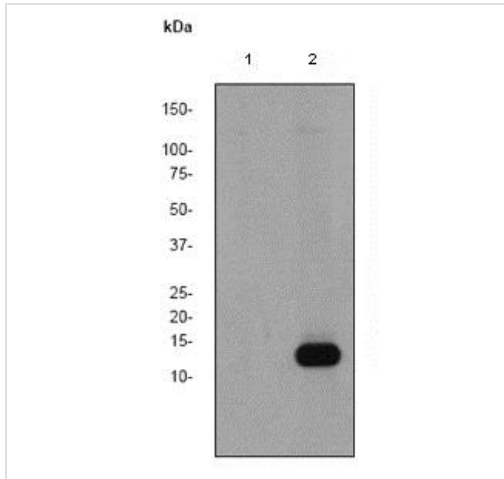
Phosphorylation at Ser-11 (H3S10ph), which is linked to gene activation, prevents methylation at Lys-10 (H3K9me) but facilitates acetylation of H3 and H4. Phosphorylation at Ser-11 (H3S10ph) by AURKB mediates the dissociation of HP1 proteins (CBX1, CBX3 and CBX5) from heterochromatin. Phosphorylation at Ser-11 (H3S10ph) is also an essential regulatory mechanism for neoplastic cell transformation. Phosphorylated at Ser-29 (H3S28ph) by MLTK isoform 1, RPS6KA5 or AURKB during mitosis or upon ultraviolet B irradiation. Phosphorylation at Thr-7 (H3T6ph) by PRKCBB is a specific tag for epigenetic transcriptional activation that prevents demethylation of Lys-5 (H3K4me) by LSD1/KDM1A. At centromeres, specifically 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-10 (H3K9me) by KDM4C/JMJD2C. Phosphorylation at Tyr-42 (H3Y41ph) by JAK2 promotes exclusion of CBX5 (HP1 alpha) from chromatin.

Monoubiquitinated by RAG1 in lymphoid cells, monoubiquitination is required for V(D)J recombination (By similarity). Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins.

細胞内局在

Nucleus. Chromosome.

画像



Western blot - Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351)

All lanes : Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351) at 1/500000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : HeLa cell lysate treated with FBS + Calyculin A.

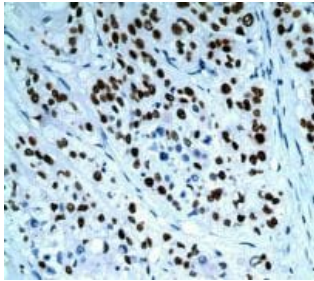
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 16 kDa

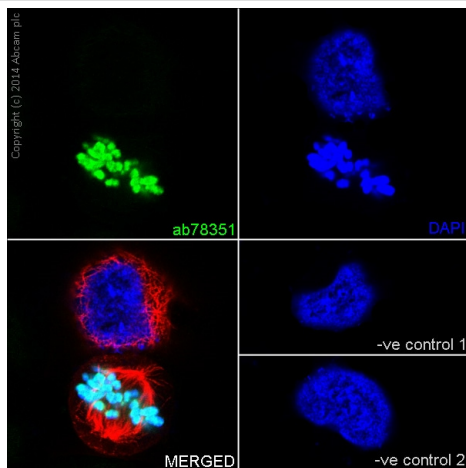
Observed band size: 14 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351)

ab78351 at 1/100 dilution staining Histone H3 in human breast carcinoma tissue, using a HRP/AP polymerized secondary antibody.

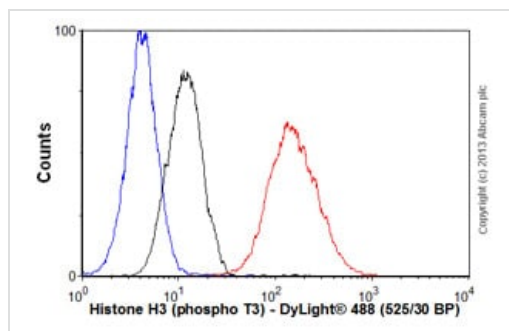
Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351)

Immunocytochemistry analysis of HeLa (human cervix adenocarcinoma epithelial cell) labeling Histone H3 with purified ab78351 at 1/250 dilution. Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% tritonX-100. Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/1000 (2 µg/ml) was used as the secondary antibody. [ab195889](#) Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.18 µg/ml) was used as counterstain. Nuclei were stained blue with DAPI.

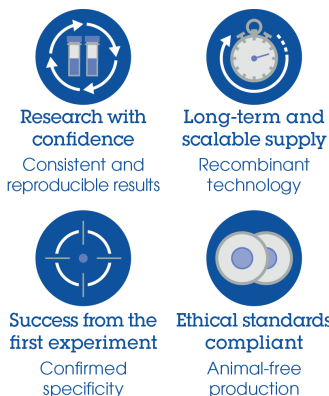
Negative control: PBS instead of the primary antibody.



Flow Cytometry (Intracellular) - Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351)

Overlay histogram showing HeLa cells stained with ab78351 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab78351, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was a goat anti-rabbit DyLight® 488 (IgG; H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

Why choose a recombinant antibody?



Anti-Histone H3 (phospho T3) antibody [EP1702Y] (ab78351)

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