


Anti-Histone H3 (phospho T3) antibody [RM159] ab222775

リコンビナント

画像数 4

製品の概要

製品名	Anti-Histone H3 (phospho T3) antibody [RM159]
製品の詳細	Rabbit monoclonal [RM159] to Histone H3 (phospho T3)
由来種	Rabbit
特異性	ab222775 reacts to Histone H3 phosphorylated at Threonine 3. No cross reactivity with other phosphorylated histones
アプリケーション	適用あり: ICC/IF, WB
種交差性	交差種: Human 交差が予測される動物種: a wide range of other species 
免疫原	Synthetic peptide corresponding to Histone H3 (phospho T3).
ポジティブ・コントロール	WB: HeLa cell lysate, non-treated or treated with Nocodazole. ICC/IF: HeLa cells.

製品の特性

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 long term. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.09% Sodium azide Constituents: 1% BSA, 40% Glycerol (glycerin, glycerine), PBS
精製度	Protein A purified
特記事項 (精製)	ab222775 was purified from an animal origin-free culture supernatant.
ポリ/モノ	モノクローナル
クローン名	RM159
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ab222775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検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		Use a concentration of 0.5 - 2 µg/ml.
WB		Use a concentration of 0.1 - 1 µg/ml. Predicted molecular weight: 15 kDa.

ターゲット情報

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. 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.</p> <p>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.</p> <p>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</p>

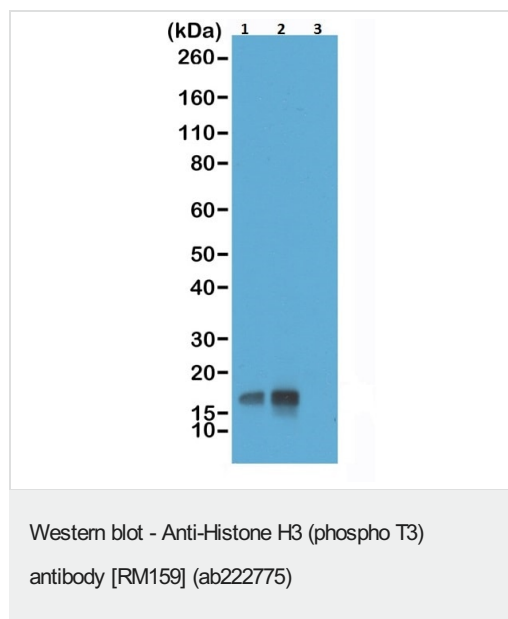
at Thr-7 (H3T6ph) by PRKCBB is a specific tag for epigenetic transcriptional activation that prevents demethylation of Lys-5 (H3K4me) by LSD1/KDM1A. At centromeres, specifically phosphorylated at Thr-12 (H3T11ph) from prophase to early anaphase, by DAPK3 and PKN1. Phosphorylation at Thr-12 (H3T11ph) 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



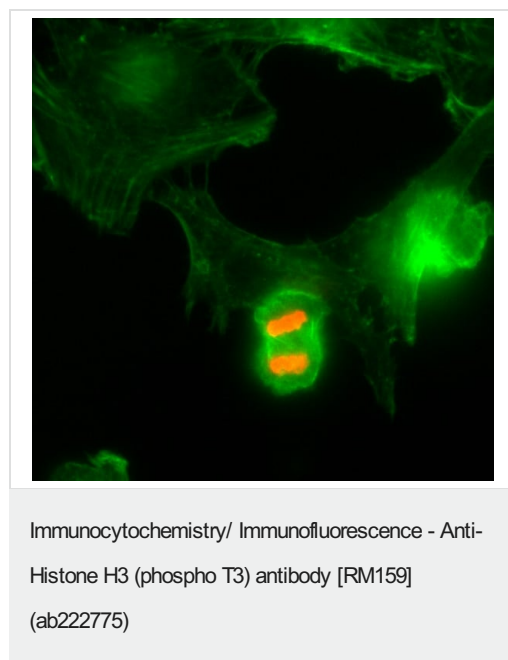
All lanes : Anti-Histone H3 (phospho T3) antibody [RM159] (ab222775) at 0.1 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate, non-treated

Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) treated with Nocodazole

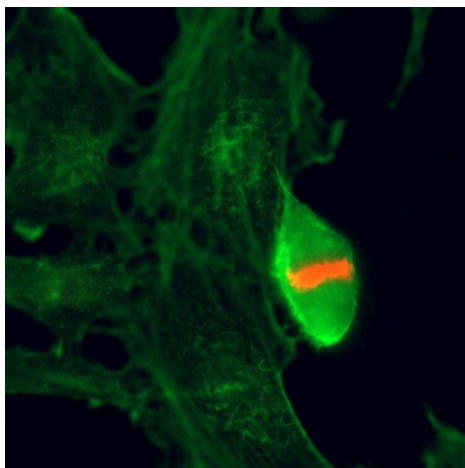
Lane 3 : Recombinant Histone H3.3

Predicted band size: 15 kDa



HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Histone H3 (red) using ab222775 at 2 µg/ml in ICC/IF.

Actin filaments were labeled with fluorescein phalloidin (green).



Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (phospho T3) antibody [RM159] (ab222775)

HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Histone H3 (red) using ab222775 at 2 µg/ml in ICC/IF.

Actin filaments were labeled with fluorescein phalloidin (green).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Histone H3 (phospho T3) antibody [RM159] (ab222775)

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