abcam

Product datasheet

Anti-acetyl Lysine antibody [1C6] ab22550

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概述

产品名称	Anti-acetyl Lysine**抗体**[1C6]
描述	**小鼠单克隆抗体**[1C6] to acetyl Lysine
宿主	Mouse
特异性	ab22550 recognises proteins with acetylated lysine.
经测试应用	**适用于:** ChIP, ICC/IF, WB
种属反应性	**与反应:** Species independent
免疫原	Synthetic peptide: sequence surrounding the acetylated lysine 9 of histone H3
阳性对照	ChIP: HeLa cell lysate. ICC: MCF7 cell line. WB: HeLa, COS7 and C2C12 cell lysates.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA
纯度	Protein G purified
克隆	单克隆
克隆编号	1C6
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab22550于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

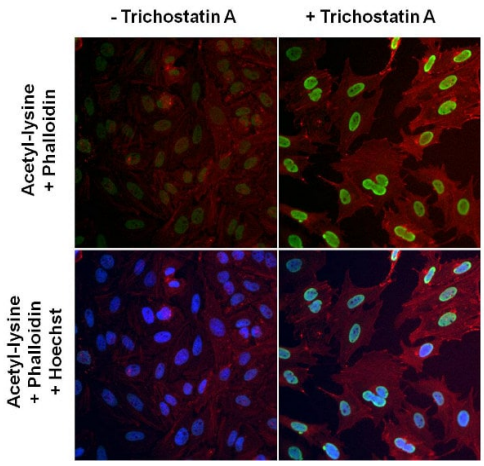
应用	Ab评论	说明
ChIP	★★★★☆ (1)	Use a concentration of 10 µg/ml.
ICC/IF		1/100 - 1/500.
WB	★★★★☆ (3)	1/500 - 1/2000.

靶标

相关性

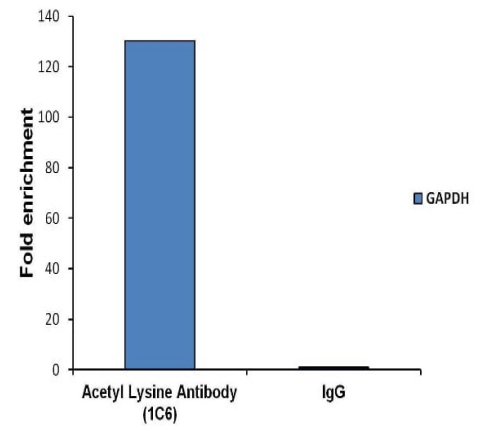
In the nucleus, DNA is tightly packed into nucleosomes generating an environment which is highly repressive towards DNA processes such as transcription. Acetylation of lysine residues within proteins has emerged as an important mechanism used by cells to overcome this repression. The acetylation of non-histone proteins such as transcription factors, as well as histones appears to be involved in this process. Acetylation may result in structural transitions as well as specific signaling within discrete chromatin domains. The role of acetylation in intracellular signaling has been inferred from the binding of acetylated peptides by the conserved bromodomain. Furthermore, recent findings suggest that bromodomain/acetylated-lysine recognition can serve as a regulatory mechanism in protein-protein interactions in numerous cellular processes such as chromatin remodeling and transcriptional activation. The reversible lysine acetylation of histones and non-histone proteins plays a vital role in the regulation of many cellular processes including chromatin dynamics and transcription, gene silencing, cell cycle progression, apoptosis, differentiation, DNA replication, DNA repair, nuclear import, and neuronal repression. More than 20 acetyltransferases and 18 deacetylases have been identified so far, but the mechanistic details of substrate selection and site specificity of these enzymes remain unclear. Over 40 transcription factors and 30 other nuclear, cytoplasmic, bacterial, and viral proteins have been shown to be acetylated in vivo.

图片



Immunocytochemistry/ Immunofluorescence - Anti-acetyl Lysine antibody [1C6] (ab22550)

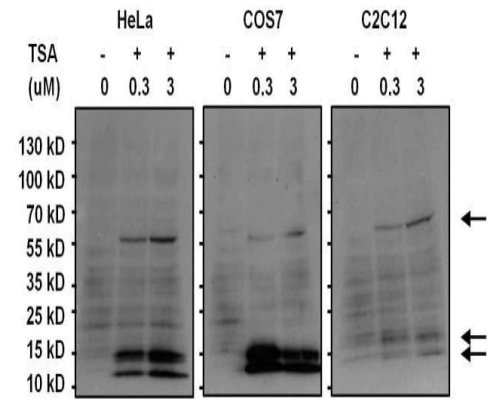
Immunoflouroescence analysis of HeLa Cells labelling lysine acetylated proteins with ab22550. Formalin fixed cells were permeabalized with 0.1& Triton X-100 in TBS for 10 mins at room temperature and subsequently blocked with BSA at room temperature for 15 mins. Cells were then probed with ab22550 at 1/100 for 1 hour at room temperature. The secondary used was a DyLight® 488 goat anti-mouse used at 1/400 for 30 minutes at room temperature. Additional counterstains used were F-actin with a DyLight® 554 Phalloidin and Neuclei stained using a Hoechst 33342 conjugate. Image was taken at X20 magnification.



ChIP - Anti-acetyl Lysine antibody [1C6] (ab22550)

Chromatin Co-Immunoprecipitation (ChIP) analysis using ab22550 binding acetylated lysines in 10E+06 LNCaP cells. Protein binding was detected using real-time PCR.

Positive control: Fold enrichment of ab22550.
Negative Control: Non-specific IgG.



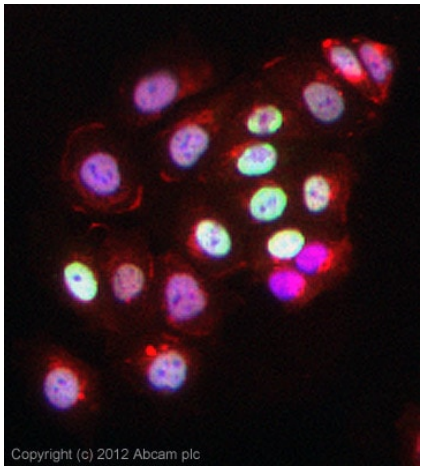
Western blot - Anti-acetyl Lysine antibody [1C6] (ab22550)

All lanes : Anti-acetyl Lysine antibody [1C6] (ab22550) at 1/1000 dilution

Lane 1 : HeLa (untreated) cell lysate
Lane 2 : HeLa (treated with 0.3 uM TSA, 16h) cell lysate
Lane 3 : HeLa (treated with 3 uM TSA, 16h) cell lysate
Lane 4 : COS7 (untreated) cell lysate
Lane 5 : COS7 (treated with 0.3 uM TSA, 16h) cell lysate
Lane 6 : COS7 (treated with 3 uM TSA, 16h) cell lysate
Lane 7 : C2C12 (untreated) cell lysate
Lane 8 : C2C12 (treated with 0.3 uM TSA, 16h) cell lysate
Lane 9 : C2C12 (treated with 3 uM TSA, 16h) cell lysate

Lysates/proteins at 50 µg per lane.

Western blot analysis of lysine acetylated proteins from cells left untreated (DMSO only) or cells treated with 0.3uM or 3uM of Trichostatin A (TSA) for 16 hours was performed by loading 50 µg of the indicated whole cell lysates per well and 10 µL of PageRuler Prestained Protein Ladder onto a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked with 5% BSA/TBST for at least 1 hour. The membrane was probed with an Acetyl Lysine monoclonal antibody at a dilution of 1:1000 overnight at 4°C on a rocking platform, washed in TBS-0.1%Tween-20, and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:20,000 for 1 hour. Chemiluminescent detection was performed using SuperSignal West Pico.



Immunocytochemistry/ Immunofluorescence - Anti-acetyl Lysine antibody [1C6] (ab22550)

ICC/IF image of ab22550 stained MCF7 cells. The cells were 4% formaldehye fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab22550, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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