abcam

Product datasheet

Anti-acetyl Lysine antibody [RM101] ab190479

Recombinant

2 Abreviews 19 References 5 Images

Overview

Product name	Anti-acetyl Lysine antibody [RM101]
Description	Rabbit monoclonal [RM101] to acetyl Lysine
Host species	Rabbit
Specificity	ab190479 reacts to lysine-acetylated proteins. No cross reactivity with nonacetylated lysine, or lysine with other modification.
Tested applications	**Suitable for:** ELISA, WB, IHC-P, ChIP, Flow Cyt, IP, ICC/IF
Species reactivity	**Reacts with:** Species independent
Immunogen	Synthetic peptide corresponding to acetyl Lysine conjugated to bovine serum albumin.
Positive control	A431 cells treated with Trichostatin A; HeLa whole cell lysate - Trichostatin A treated

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 48% PBS, 1% BSA, 50% Glycerol
Purity	Protein A purified
Clonality	Monoclonal
Clone number	RM101
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab190479 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

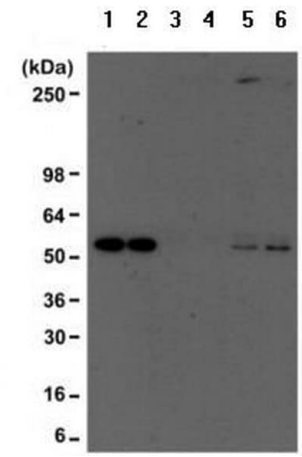
Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
WB	★★★★★ (1)	1/500 - 1/2000.
IHC-P		1/100 - 1/500.
ChIP		1/100 - 1/500.
Flow Cyt		Use at an assay dependent concentration. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		1/100 - 1/500.
ICC/IF		1/100 - 1/500.

Target

Relevance

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.

Images



Immunoprecipitation - Anti-acetyl Lysine antibody [RM101] (ab190479)

Lane 1: A431 whole cell lysate

Lane 2: A431 whole cell lysate (pretreated with Trichostatin A)

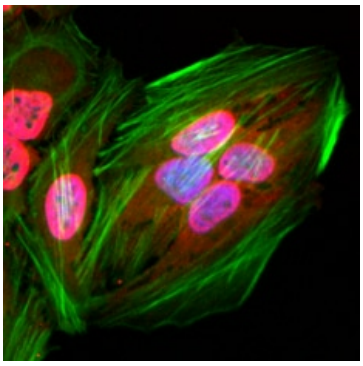
Lane 3: A431 whole cell lysate immunoprecipitated with Rabbit IgG

Lane 4: A431 whole cell lysate (pretreated with Trichostatin A) immunoprecipitated with Rabbit IgG

Lane 5: A431 whole cell lysate immunoprecipitated with ab190479 at 1/500

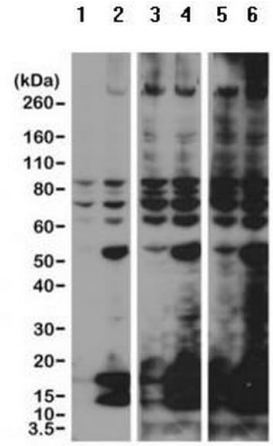
Lane 6: A431 whole cell lysate (pretreated with Trichostatin A) immunoprecipitated with ab190479 at 1/500

Western blot performed using anti-PTEN mouse monoclonal antibody.



Immunocytochemistry/ Immunofluorescence - Anti-acetyl Lysine antibody [RM101] (ab190479)

Immunocytochemical staining of HeLa cells labelling Acetyl Lysine with ab190479 at 1:100. Actin filaments are labelled using fluorescein phalloidin (green), and nuclei are stained with DAPI (blue).



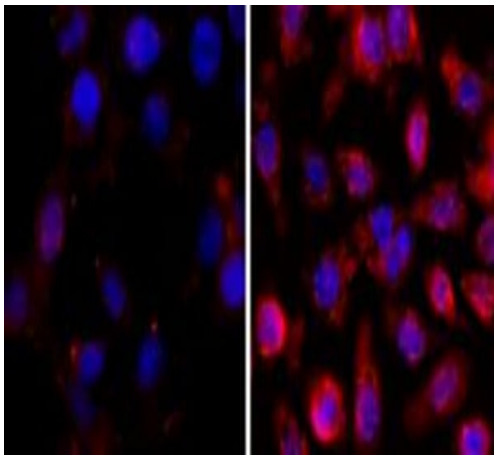
Western blot - Anti-acetyl Lysine antibody [RM101] (ab190479)

All lanes : Anti-acetyl Lysine antibody [RM101] (ab190479) at 1/2000 dilution

Lanes 1 & 3 & 5 : Lysate of nontreated HeLa cells
Lanes 2 & 4 & 6 : Lysate of HeLa cells treated with Trichostatin A

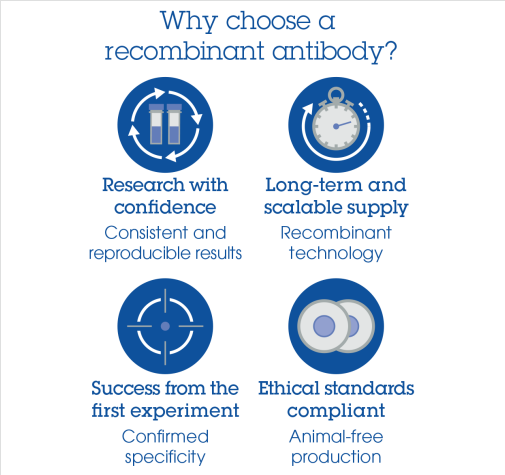
Developed using the ECL technique.

Exposure time increased from blot on left (lanes 1, 2) to blot on right (lanes 5,6).



Immunocytochemistry/ Immunofluorescence - Anti-acetyl Lysine antibody [RM101] (ab190479)

Immunofluorescent analysis of A431cells nontreated (left) or treated with Trichostatin A (right), using ab190479 at 1/500 followed by a PE conjugated secondary antibody (red) and DAPI (blue).



Anti-acetyl Lysine antibody [RM101] (ab190479)

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