abcam

ab190479

Anti-acetyl Lysine antibody [RM101]

Anti-acetyl Lysine antibody [RM101] (ab190479) is a rabbit monoclonal antibody detecting acetyl Lysine in **Western Blot, Flow Cytometry, IP, IHC-P, ICC/IF, ELISA, ChIP**.

- Recombinant format for unrivalled batch-batch consistency
- Over 20 publications

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	RM101
Purification technique	Affinity purification Protein A
Specificity	ab190479 reacts to lysine-acetylated proteins. No cross reactivity with nonacetylated lysine, or lysine with other modification.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Modified Amino Acid
Dilution info	1/100 - 1/500
Notes	-

ChIP

Expected

Species	Modified Amino Acid
Dilution info	1/100 - 1/500
Notes	-

Flow Cyt

Expected

Species	Modified Amino Acid
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

ELISA

Expected

Species	Modified Amino Acid
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Modified Amino Acid
Dilution info	1/500 - 1/2000
Notes	-

IHC-P

Expected

Species	Modified Amino Acid
Dilution info	1/100 - 1/500
Notes	-

ICC/IF

Tested

Species	Modified Amino Acid
Dilution info	1/100 - 1/500
Notes	-

Target data

See full target information acetyl Lysine

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Anti-acetyl Lysine antibody [RM101] (ab190479) is a rabbit recombinant monoclonal antibody and is validated for use in ChIP, ELISA, Flow Cyt, ICC/IF, IHC-P, IP, WB in human, mouse, rat samples.

Anti-acetyl Lysine antibody [RM101] (ab190479) has been cited over 26 times in peer reviewed journals and is trusted by the scientific community.

Abcam's high quality manufacturing and validation processes ensure Anti-acetyl Lysine antibody [RM101] (ab190479) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.

Anti-acetyl Lysine antibody [RM101] (ab190479) specifically detects pan acetyl Lysine and is sold in 100 µL selling sizes.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Acetyl lysine often referred to as acetylated lysine is a modification of the amino acid lysine where an acetyl group is transferred to the lysine residue. This modification impacts the mass of the lysine residue slightly altering its properties. Acetyl lysine occurs in histone proteins and this modification is an important regulator of chromatin structure and function. The acetylation of lysine residues happens frequently in the nucleus of eukaryotic cells where histone acetylases (HATs) facilitate this process. Known alternatively as lysine acetylation it represents an important post-translational modification impacting gene expression regulation.
Biological function summary	Acetylation adds an acetyl group to the lysine which changes its positive charge reducing chromatin compaction and enhancing gene transcription. The acetyl lysine modification is not acting alone; it forms part of larger histone modification complexes. By altering chromatin structure acetyl lysine regulates the accessibility of transcription factors to DNA influencing various biological processes like DNA repair replication and cell cycle progression. The interaction between acetyl lysine and chromatin remodeling complexes plays a significant role in epigenetic regulation.
Pathways	Acetyl lysine is central to epigenetic regulatory pathways significantly impacting gene expression and cellular growth pathways. The acetylation process involves histone acetylases (HATs) such as the p300/CBP complex which adds acetyl groups to specific lysines on histones increasing transcriptional activity. Conversely histone deacetylases (HDACs) remove acetyl groups decreasing transcription. The balance of these modifications involves critical pathways such as the TGF-beta signaling pathway and the NF-kB pathway linking acetyl lysine with numerous cellular activities and protein interactions.
Associated diseases and disorders	Dysregulation of acetyl lysine levels is associated with cancer and neurodegenerative diseases. In cancer the aberrant acetylation of lysine impacts expression of oncogenes and tumor suppressor genes contributing to carcinogenesis. Proteins like p53 which relies on acetylation for activation become functionally impaired. Also in neurodegenerative disorders such as Alzheimer's disease histone acetylation imbalances disrupt neuronal function and gene expression. The involvement of the sirtuin family of proteins which act as NAD+-dependent deacetylases connects lysine acetylation to these diseases highlighting

its importance in maintaining normal cellular functions and its role in pathological states.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

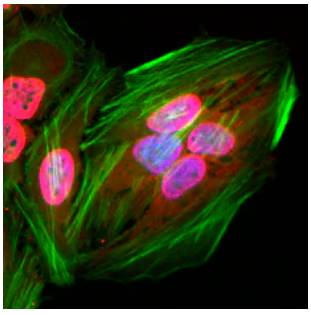
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

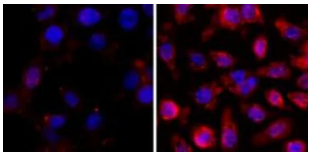
4 product images



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

Acetyl Lysine Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-acetyl Lysine antibody

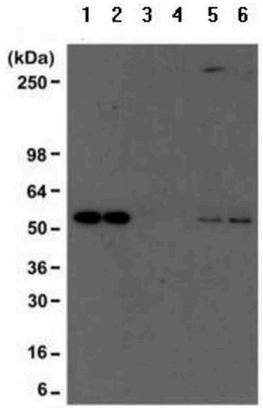
Immunocytochemical staining of HeLa cells labelling Acetyl Lysine with ab190479 at 1:100. Actin filaments are labelled using fluorescein phalloidin (green), and nuclei are stained with DAPI (blue).



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

Acetyl Lysine Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-acetyl Lysine antibody

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).



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

Lane 1: A431 whole cell lysate
Lane 2: A431 whole cell lysate (pretreated with Trichostatin A)

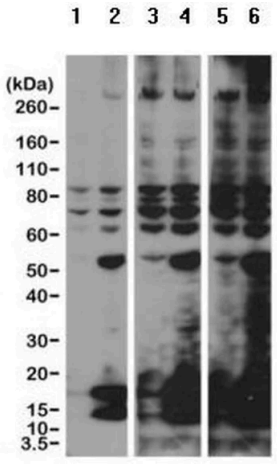
Lane 3: A431 whole cell lysate immunoprecipitated with Rabbit IgG

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.

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



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

Acetyl Lysine Western blot staining using rabbit Anti-acetyl Lysine antibody

Exposure time increased from blot on left (lanes 1, 2) to blot on right (lanes 5,6).
All lanes:
Western blot - Anti-acetyl Lysine antibody [RM101] (ab190479) at 1/2000 dilution

Lanes 1, 3 and 5:
Lysate of nontreated HeLa cells

Lanes 2, 4 and 6:
Lysate of HeLa cells treated with Trichostatin A

Developed using the ECL technique.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.