

# Product Datasheet

## Acetyl-Lysine Antibody (1C6)

### NB100-74339

Unit Size: 100 ug

Store at -20C. Avoid freeze-thaw cycles.

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**NB100-74339**

## Acetyl-Lysine Antibody (1C6)

Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1C6
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS, 1 mg/mL BSA

Product Description	
Description	Novus Biologicals Mouse Acetyl-Lysine Antibody (1C6) (NB100-74339) is a monoclonal antibody validated for use in WB, ICC/IF, IP and ChIP. Anti-Acetyl-Lysine Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Species	Non-species specific
Immunogen	Synthetic peptide sequence surrounding the acetylated lysine 9 of histone H3.

Product Application Details	
Applications	Western Blot, Dot Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1:500 - 1:2000, Immunocytochemistry/ Immunofluorescence 1:100 - 1:500, Immunoprecipitation 3 ug, Dot Blot 1:100 - 1:2000, Chromatin Immunoprecipitation (ChIP) 10 ug

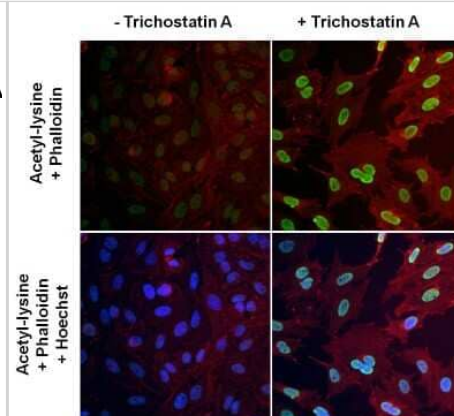
**Images**

Western Blot: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of Acetyl-Lysine in HeLA cells.

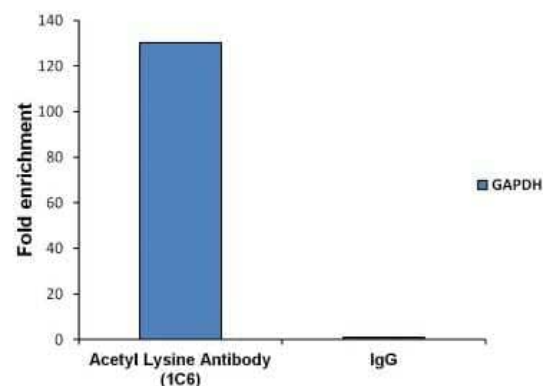
Fig. 1



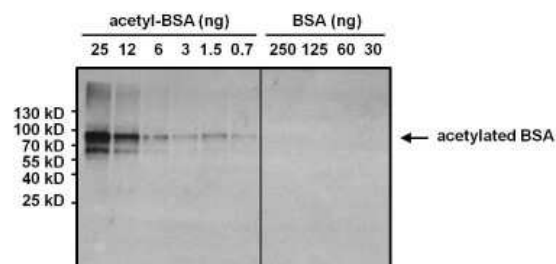
Immunocytochemistry/Immunofluorescence: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of lysine acetylated proteins (green) in HeLa cells left untreated (left panels) or treated with 0.3uM Trichostatin A for 16 hours (right panels).



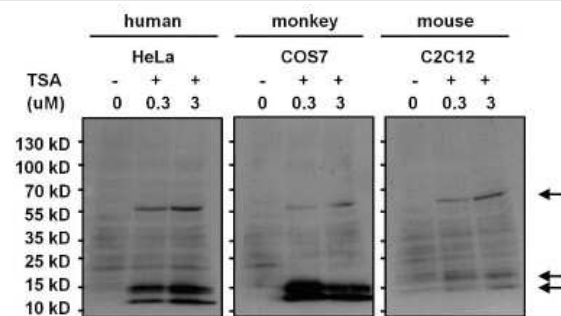
Chromatin Immunoprecipitation: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of chromatin proteins with Acetyl-Lysine was performed using cross-linked chromatin from  $4 \times 10^6$  LNCaP cells. Immunoprecipitation was performed using the Magnetic ChIP kit with 10ug of an Acetyl-Lysine monoclonal antibody. Quantitation of immunoprecipitated GAPDH promoter sequence is presented as fold enrichment of the acetyl lysine monoclonal antibody versus non-specific IgG.



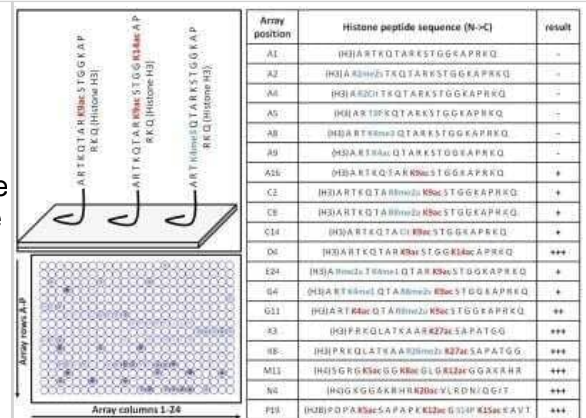
Western Blot: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of Acetyl-Lysine was performed by loading various amounts of acetylated BSA or non-acetylated BSA per well and 10ul of PageRuler Prestained Protein Ladder onto a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to a PVDF 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 4C 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.



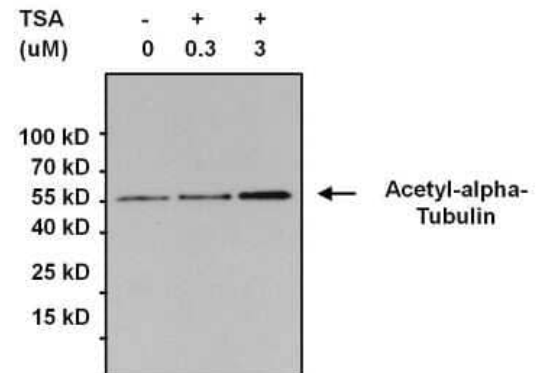
Western Blot: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of lysine acetylated proteins from cells left untreated (DMSO only) or cells treated with 0.3uM or 3uM of Trichostatin A (TSA) for 16 hours was performed by loading 50 ug of the indicated whole cell lysates per well and 10ul of PageRuler 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 4C 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.



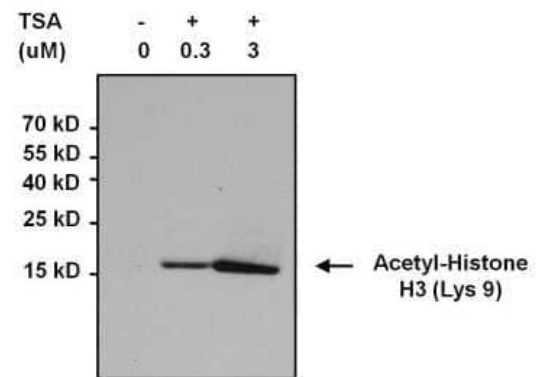
**Dot Blot: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Specific detection of lysine acetylated histones using an Acetyl-Lysine monoclonal antibody.** Histone peptides containing 384 different modification combinations spotted in duplicate on a peptide array were used according to the manufacturer instructions. A schematic and table with representative results (positive detection in red, negative in blue) are shown. Result interpretation and quantification were performed using the manufacturer software. Chemiluminescent detection was performed.



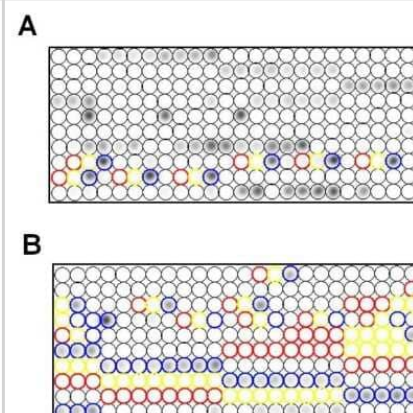
**Immunoprecipitation: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Immunoprecipitation of acetylated alpha-Tubulin was performed.** 3uM or 3uM Trichostatin A (TSA) for 16 hours. Antigen-antibody complexes were formed by incubating 500ug of lysate with 3ug of an Acetyl-Lysine monoclonal antibody overnight on a rocking platform at 4C. The immune complexes were captured on 50ul Protein A/G Agarose at a dilution of 1:1000 overnight rotating at 4C, washed in TBST, and probed with Clean-blot IP Detection Reagent at a dilution of 1:2000 for at least 1 hour.



**Immunoprecipitation: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Analysis of acetylated Histone H3 (Lys9) was performed using whole cell lysates from cells left untreated (DMSO only) or cells treated with 0.3uM or 3uM Trichostatin A (TSA) for 16 hours.** Antigen-antibody complexes were formed by incubating 500ug of the indicated lysate with 3ug of an Acetyl-Lysine mAb overnight on a rocking platform at 4C. The immune complexes were captured on 50ul Protein A/G Agarose, washed extensively, and eluted with 5X Lane Marker Reducing Sample Buffer. Samples were resolved on a 4-20% Tris-HCl polyacrylamide gel, transferred to a PVDF membrane, and blocked with 5% BSA/TBS-0.1%Tween for at least 1 hr. The membrane was probed with an Acetyl-Histone H3 (Lys9) mAb at a dilution of 1:1000 overnight rotating at 4C, washed in TBST, and probed with Clean-blot IP Detection Reagent at a dilution of 1:2000 for at least 1 hour. Chemiluminescent detection was performed using SuperSignal West Pico.



**Dot Blot: Acetyl-Lysine Antibody (1C6) [NB100-74339] - Specific detection of lysine acetylated histones using an Acetyl-Lysine monoclonal antibody.** Histone peptides containing 384 different modification combinations spotted in duplicate on a peptide array were used according to the manufacturer's instructions (Active Motif). Representative results showing specific detection of acetylated Histone H4 K20 (blue circles, panel A) and H3 K9 (blue circles, panel B). Note that Histone H4 K20me2/K20me3 (red and yellow circles, panel A) and H3 K9me2/K9m3 (red and yellow circles, panel B) are not detected by the Acetyl-Lysine monoclonal antibody.



## Publications

Dobosz AM, Janikiewicz J, Borkowska AM et al. Stearoyl-CoA Desaturase 1 Activity Determines the Maintenance of DNMT1-Mediated DNA Methylation Patterns in Pancreatic  $\beta$ -Cells International Journal of Molecular Sciences 2020-09-18 [PMID: 32961871] (Western Blot, Human)

Dziewulska A, Dobosz AM, Dobrzyn A et al. SCD1 regulates the AMPK/SIRT1 pathway and histone acetylation through changes in adenine nucleotide metabolism in skeletal muscle J. Cell. Physiol. 2019-06-26 [PMID: 31241768] (Mouse)

Tataranni T, Agriesti F, Ruggieri V et al. Rewiring carbohydrate catabolism differentially affects survival of pancreatic cancer cell lines with diverse metabolic profiles Oncotarget 2017-06-20 [PMID: 28476035] (WB, Human)





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### Products Related to NB100-74339

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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