

ARG20523 anti-Acetylated Lysine antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Acetylated Lysine
Tested Reactivity	Other
Tested Application	ELISA, ICC/IF, IP, WB
Specificity	Detects proteins containing acetylated lysine residues. Does not detect non-acetylated lysine residues.
Host	Rabbit
Clonality	Polyclonal
Target Name	Acetylated Lysine
Immunogen	Acetylated KLH
Conjugation	Un-conjugated

Application Instructions

Cross Reactivity Note	Species Independent.										
Application table	<table><thead><tr><th>Application</th><th>Dilution</th></tr></thead><tbody><tr><td>ELISA</td><td>Assay-dependent</td></tr><tr><td>ICC/IF</td><td>1:100</td></tr><tr><td>IP</td><td>Assay-dependent</td></tr><tr><td>WB</td><td>1:250</td></tr></tbody></table>	Application	Dilution	ELISA	Assay-dependent	ICC/IF	1:100	IP	Assay-dependent	WB	1:250
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Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.										

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Background

Post-translational modifications of proteins play critical roles in the regulation and function of many known biological processes. Proteins can be post-translationally modified in many different ways, and a common post-transcriptional modification of Lysine involves acetylation (1). The conserved amino-terminal domains of the four core histones (H2A, H2B, H3 and H4) contain lysines that are acetylated by histone acetyltransferases (HATs) and deacetylated by histone deacetylases (HDACs) (2). Protein posttranslational reversible lysine Nε-acetylation and deacetylation have been recognized as an emerging intracellular signaling mechanism that plays critical roles in regulating gene transcription, cell-cycle progression, apoptosis, DNA repair, and cytoskeletal organization (3). The regulation of protein acetylation status is impaired in the pathologies of cancer and polyglutamine diseases (4), and HDACs have become promising targets for anti-cancer drugs currently in development (5).

1. Yang XJ. (2005). *Oncogene*. 24:1653-1662.
2. Hassig, C.A. and Schreiber, S.L. (1997). *Curr. Opin. Chem. Biol.* 1(3): 300-308.
3. Yang XJ. (2004). *Bioessays* 26:1076-1087.
4. Hughes, R.E. (2002). *Curr. Biol.* 12: R141-R143.
5. Vigushin, D.M. and Coombes, R.C. (2004). *Curr. Cancer Drug Targets* 4: 205-218.
6. Chan, H.M. et al. (2001). *Nat. Cell Biol.* 3: 667- . 674.
7. Martinez-Balbas, M.A. et al. (2000). *EMBO J.* 19: 662-671.

Research Area

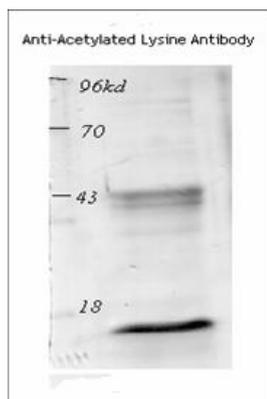
Gene Regulation antibody

Images



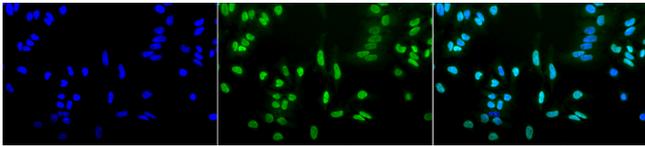
ARG20523 anti-Acetylated Lysine antibody ICC/IF image

Immunofluorescence: Heat Shocked (42°C for 1 hour) HeLa cells. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: ARG20523 anti-Acetylated Lysine antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Magnification: 100x. Left: DAPI (blue) nuclear stain. Middle: ARG20523 anti-Acetylated Lysine antibody. Right: Composite.



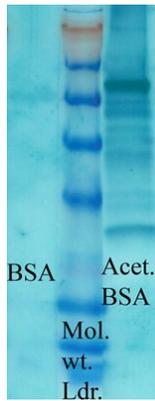
ARG20523 anti-Acetylated Lysine antibody WB image

Western blot: acetylated histone from TSA-treated mouse spleen cells, stained with ARG20523 anti-Acetylated Lysine antibody.



ARG20523 anti-Acetylated Lysine antibody ICC/IF image

Immunofluorescence: Heat Shocked (42°C for 1 hour) HeLa cells. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: ARG20523 anti-Acetylated Lysine antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Magnification: 20x. Left: DAPI (blue) nuclear stain. Middle: ARG20523 anti-Acetylated Lysine antibody. Right: Composite.



ARG20523 anti-Acetylated Lysine antibody WB image

Western blot: acetylated lysine in BSA (Left) and Acetylated BSA (Right) stained with ARG20523 anti-Acetylated Lysine antibody at 1:1000 dilution.