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Monoclonal Antibody to Acetylated Lysine - Aff - Purified

Alternate names: AcK, acetyl Lysine, acetyl-Lysine

Catalog No.: TA327982

Quantity: 0.1 mg

Concentration: 0.5 mg/ml

Background: Proteins are reversibly and dynamically acetylated on the ε-amino group of lysine by acetyltransferases and deacetylated by deacetylases. This post-translational modification can regulate protein function (interactions with other proteins and DNA binding). Histones and transcription factors (PCAF, p53, p300, etc) appear to be the major targets of acetytransferases. Acetylation is usually associated with chromatin remodeling and transcriptional activation, although in some cases (telomeres) it is associated with gene silencing.
Structure: Proteins are acetylated by the reversible transfer of acetyl-CoA to the ε-amino group of lysine.
Function: Post-translational modification of proteins by acetyltransferases and deacetylated by deacetylases to regulate protein-protein and protein-DNA interactions.

Host / Isotype: Mouse / IgG2b

Clone: 15G10

Immunogen: Acetylated protein mixture.

Format:
State: Liquid purified IgG fraction
Purification: Affinity Chromatography
Buffer System: PBS, pH 7.2
Preservatives: 0.09% Sodium Azide

Applications:
Western blot: Each lot of this antibody is quality control tested.
Recommended Dilutions: Use 5 µg per 5 ml antibody dilution buffer for each mini-gel.
Immunoprecipitation: 1/10-1/500.
Immunocytochemistry/Immunofluorescence: 1-4 µg/ml.
See also Application Reference 1.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The *15G10* monoclonal antibody recognizes Acetylated Lysine residues on proteins.

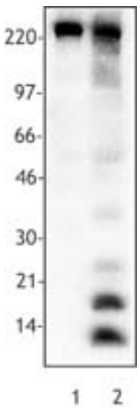
Storage: Store undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.

General Readings:
1. Koen YM, Sarma D, Hajovsky H et al. Protein Targets of Thioacetamide Metabolites in Rat Hepatocytes Chem Res Toxicol 2013 Mar 20 [PMID: 23465048] (WB)
2. Wang S, Yan-Neale Y, Zeremski M, Cohen D. Transcription regulation by histone

deacetylases. Novartis Found Symp. 2004;259:238-45; discussion 245-8, 285-8. PubMed PMID: 15171258.
3. Legube G, Trouche D. Regulating histone acetyltransferases and deacetylases. EMBO Rep. 2003 Oct;4(10):944-7. PubMed PMID: 14528264.
4. Chen LF, Greene WC. Regulation of distinct biological activities of the NF-kappaB transcription factor complex by acetylation. J Mol Med (Berl). 2003 Sep;81(9):549-57. Epub 2003 Aug 15. PubMed PMID: 12920522.

Pictures:

Untreated Hela cells (lane 1) and sodium butyrate-treated Hela cells (24 hr treatment, lane 2) were lysed and cell extracts resolved by electrophoresis, transferred to nitrocellulose and probed with anti-acetylated lysine antibody (clone 15G10). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and a chemiluminescence system.



Untreated Hela cells (Upper Panel), or overnight nocodazole treated Hela cells (Lower Panel) stained with purified mouse monoclonal antibody against Acetylated Lysine (clone 15G10), followed by Rhodamine Red-X conjugated Donkey anti-mouse IgG and DAPI.