

## Acetylated Lysine Polyclonal Antibody

### Product Specifications

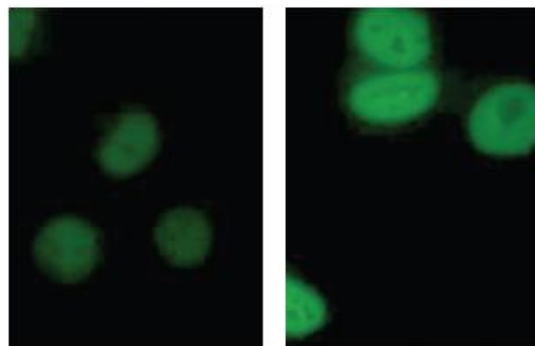
<b>Catalog Number:</b>	KAP-TF120
<b>Host:</b>	Rabbit
<b>Specificity:</b>	Recognizes proteins acetylated on lysine residues; does not recognize the non-acetylated proteins (tested acetylated histone, acetylated BSA, and acetylated MBP)
<b>Applications:</b> <i>The optimal dilution for a specific application must be determined by the investigator</i>	<b>WB:</b> 1/250 <b>IF:</b> 1:50 <b>IP:</b> 1/25 <b>ELISA:</b> 1/1000
<b>Predicted m.w.:</b>	Dependent upon protein(s) of interest.
<b>Concentration:</b>	See product label
<b>Purification:</b>	Protein A Affinity
<b>Format:</b>	PBS, pH 7.0, 0.09% sodium azide
<b>Storage:</b> <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
<b>Immunogen:</b>	Acetylated KLH
<b>Related Products:</b>	
SAB-300	Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate
KPR-CC001	Histone H2B Recombinant Protein
905-705-100	Histone H3 (Acetyl-Lys9) Polyclonal Antibody
907-026	Acetyltransferase Activity Kit
905-752-100	Histone H3 (phospho-Ser28) Polyclonal Antibody
905-771-100	Histone H2AX (phospho-Ser139) Polyclonal Antibody
905-778-100	Histone H3 (dimethyl-Lys9) Polyclonal Antibody
905-780-100	Histone H3 (phospho-Ser10) Polyclonal Antibody

### Background:

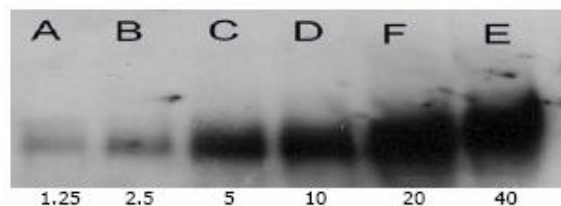
Acetylation of lysine represents an important, reversible post-translational modification. The dynamic process of lysine acetylation regulates protein-DNA and protein-protein interactions<sup>1</sup>. Lysine acetylation involves the reversible transfer of acetylCoA to the ε- amino group of lysine, which neutralizes its positive charge<sup>2</sup>. Proteins are acetylated by acetyltransferases and deacetylated by deacetylases. Acetyltransferases can also be autoacetylated. Researchers detected auto- or cross-acetylation in CBP/p300 and P/CAF<sup>1</sup>. Most acetyltransferases contain a motif known as the bromodomain, a conserved domain possibly serving as a recognition motif for detecting acetylated versus non-acetylated proteins by binding only to acetylated lysine residues<sup>1,3</sup>. Histones and transcription factors provide the primary targets for lysine acetylation. Although histone acetylation usually results in gene activation, acetylation sometimes promotes gene silencing, as in the case of telomeres<sup>1</sup>. Regulation of protein-protein interactions via lysine acetylation holds potential implications for the mechanisms underlying a variety of cellular events, including chromatin remodeling and transcriptional activation<sup>3</sup>.

#### References:

1. Bannister, A.J., *et al.* (2000) *Cell Mol Life Sci* **57**, 1184-1192.
2. Loidl, P. (1994) *Chromosoma* **103**, 441-449.
3. Zeng, L. and Zhou, M.M. (2002) *FEBS Lett* **513**, 124-128.



Immunofluorescence staining of TSA treated (right - 100 ng/mL, 24 hours) and non-treated (left) human MMRU melanoma cells using Acetylated Lysine (RS2) Polyclonal Antibody



Immunoprecipitation of acetylated BSA with Acetylated Lysine (RS1) Polyclonal Antibody in ng

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