

PRODUCT INFORMATION



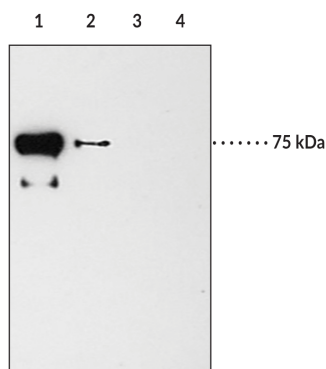
Acetyl Lysine Monoclonal Antibody (Clone 7F8)

Item No. 10010567

Overview and Properties

Contents:	This vial contains 100 µg of ammonium sulfate precipitated monoclonal antibody.
Synonym:	ACE
Immunogen:	Acetylated KLH
Cross Reactivity:	(-) Non-acetylated lysine residues
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Clone:	7F8
Host:	Mouse
Isotype:	IgG1
Applications:	ELISA, immunocytochemistry (ICC), and Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Acetylated BSA (0.01 µg)
Lane 2: Acetylated BSA (0.001 µg)
Lane 3: Acetylated BSA (0.0001 µg)
Lane 4: BSA (5 µg)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Lysine acetylation is an evolutionarily conserved posttranslational modification that is found in prokaryotes and eukaryotes at histone and non-histone protein sites.¹ Transfer of an acetyl group from acetyl-coenzyme A (acetyl-CoA) to the amino side chain of lysine is catalyzed by lysine acetyltransferases (KATs), including 13 canonical KATs from the GCN5, p300, and MYST families. Acetyl lysine removal is catalyzed by two major groups of lysine deacetylases (KDACs), the zinc-dependent histone deacetylases (HDACs) and the NAD⁺-dependent sirtuin deacetylases. Histone acetylation is associated with active gene transcription, and dysregulation of histone acetylation is associated with various diseases including cancer, Huntington's and Alzheimer's diseases, and amyotrophic lateral sclerosis (ALS).²⁻⁴ Non-histone protein acetylation is linked to various cellular processes including autophagy, DNA replication, lipid storage, mitochondrial fission and fusion, and protein synthesis, among others.¹ Cayman's Acetyl Lysine Monoclonal Antibody (Clone 7F8) can be used for ELISA, immunocytochemistry (ICC), and Western blot applications.

References

1. Narita, T., Weinert, B.T., and Choudhary, C. Functions and mechanisms of non-histone protein acetylation. *Nat. Rev. Mol. Cell Biol.* **20(3)**, 156-174 (2019).
2. Audia, J.E. and Campbell, R.M. Histone modifications and cancer. *Cold Spring Harb. Perspect.* **8(4):a019521** (2016).
3. Bonnaud, E.M., Suberbielle, E., and Malnou, C.E. Histone acetylation in neuronal (dys)function. *Biomol. Concepts* **7(2)**, 103-116 (2016).
4. Bennett, S.A., Tanaz, R., Cobos, S.N., *et al.* Epigenetics in amyotrophic lateral sclerosis: A role for histone post-translational modifications in neurodegenerative disease. *Transl. Res.* **204**, 19-30 (2019).

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