

# KAT2A Rabbit mAb

Catalog # AP75480

## Product Information

Application	WB, IP
Primary Accession	<a href="#">Q92830</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	93926

## Additional Information

Gene ID	2648
Other Names	KAT2A
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	Liquid

## Protein Information

**Name** KAT2A {ECO:0000303 | PubMed:27796307, ECO:0000312 | HGNC:HGNC:4201}

**Function** Protein lysine acyltransferase that can act as a acetyltransferase, glutaryltransferase, succinyltransferase or malonyltransferase, depending on the context (PubMed:[29211711](#), PubMed:[35995428](#)). Acts as a histone lysine succinyltransferase: catalyzes succinylation of histone H3 on 'Lys-79' (H3K79succ), with a maximum frequency around the transcription start sites of genes (PubMed:[29211711](#)). Succinylation of histones gives a specific tag for epigenetic transcription activation (PubMed:[29211711](#)). Association with the 2-oxoglutarate dehydrogenase complex, which provides succinyl-CoA, is required for histone succinylation (PubMed:[29211711](#)). In different complexes, functions either as an acetyltransferase (HAT) or as a succinyltransferase: in the SAGA and ATAC complexes, acts as a histone acetyltransferase (PubMed:[17301242](#), PubMed:[19103755](#), PubMed:[29211711](#)). Has significant histone acetyltransferase activity with core histones, but not with nucleosome core particles (PubMed:[17301242](#), PubMed:[19103755](#), PubMed:[21131905](#)). Has a strong preference for acetylation of H3 at 'Lys-9' (H3K9ac) (PubMed:[21131905](#)). Acetylation of histones gives a specific tag for epigenetic transcription activation (PubMed:[17301242](#), PubMed:[19103755](#), PubMed:[29211711](#)). Recruited by the XPC complex at promoters, where it specifically mediates acetylation of histone variant H2A.Z.1/H2A.Z, thereby promoting expression of target genes (PubMed:[29973595](#), PubMed:[31527837](#)). Involved in long-term memory consolidation and synaptic plasticity: acts by promoting expression of a hippocampal gene

expression network linked to neuroactive receptor signaling (By similarity). Acts as a positive regulator of T-cell activation: upon TCR stimulation, recruited to the IL2 promoter following interaction with NFATC2 and catalyzes acetylation of histone H3 at 'Lys-9' (H3K9ac), leading to promote IL2 expression (By similarity). Required for growth and differentiation of craniofacial cartilage and bone by regulating acetylation of histone H3 at 'Lys-9' (H3K9ac) (By similarity). Regulates embryonic stem cell (ESC) pluripotency and differentiation (By similarity). Also acetylates non- histone proteins, such as CEBPB, MRE11, PPARGC1A, PLK4 and TBX5 (PubMed:[16753578](#), PubMed:[17301242](#), PubMed:[27796307](#), PubMed:[29174768](#), PubMed:[38128537](#)). Involved in heart and limb development by mediating acetylation of TBX5, acetylation regulating nucleocytoplasmic shuttling of TBX5 (PubMed:[29174768](#)). Acts as a negative regulator of centrosome amplification by mediating acetylation of PLK4 (PubMed:[27796307](#)). Acts as a negative regulator of gluconeogenesis by mediating acetylation and subsequent inactivation of PPARGC1A (PubMed:[16753578](#), PubMed:[23142079](#)). Also acts as a histone glutaryltransferase: catalyzes glutarylation of histone H4 on 'Lys-91' (H4K91glu), a mark that destabilizes nucleosomes by promoting dissociation of the H2A-H2B dimers from nucleosomes (PubMed:[31542297](#)).

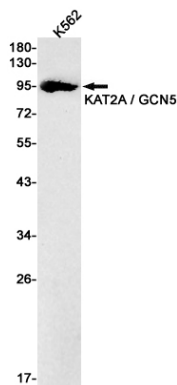
## Cellular Location

Nucleus. Chromosome Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Mainly localizes to the nucleus (PubMed:27796307). Localizes to sites of DNA damage (PubMed:25593309) Also localizes to centrosomes in late G1 and around the G1/S transition, coinciding with the onset of centriole formation (PubMed:27796307).

## Tissue Location

Expressed in all tissues tested.

## Images



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