

KAT2A Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13089B

Specification

KAT2A Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O92830
Other Accession	O9JHD2 , NP_066564.2 , A0A0R4IXF6
Reactivity	Human
Predicted	Zebrafish, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	93926
Antigen Region	611-638

KAT2A Antibody (C-term) - Additional Information

Gene ID 2648

Other Names

Histone acetyltransferase KAT2A, General control of amino acid synthesis protein 5-like 2, Histone acetyltransferase GCN5, HsGCN5, Lysine acetyltransferase 2A, STAF97, KAT2A, GCN5, GCN5L2, HGCN5

Target/Specificity

This KAT2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 611-638 amino acids from the C-terminal region of human KAT2A.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KAT2A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

KAT2A Antibody (C-term) - Protein Information

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

Function Protein lysine acyltransferase that can act as an 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

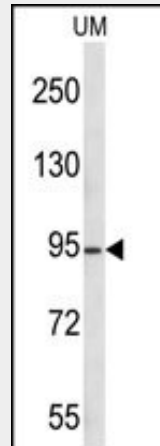
Expressed in all tissues tested.

KAT2A Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KAT2A Antibody (C-term) - Images



KAT2A Antibody (C-term) (Cat. #AP13089b) western blot analysis in uterus tumor cell line lysates (35ug/lane). This demonstrates the KAT2A antibody detected the KAT2A protein (arrow).

KAT2A Antibody (C-term) - Background

KAT2A, or GCN5, is a histone acetyltransferase (HAT) that functions primarily as a transcriptional activator. It also functions as a repressor of NF-kappa-B (see MIM 164011) by promoting ubiquitination of the NF-kappa-B subunit RELA (MIM 164014) in a HAT-independent manner (Mao et al., 2009 [PubMed 19339690]).

KAT2A Antibody (C-term) - References

Terreni, M., et al. *Retrovirology* 7, 18 (2010) :
Atanassov, B.S., et al. *Mol. Cell* 35(3):352-364(2009)
Kelly, T.J., et al. *J. Biol. Chem.* 284(30):19945-19952(2009)
Mao, X., et al. *Genes Dev.* 23(7):849-861(2009)
Paolinelli, R., et al. *Nat. Struct. Mol. Biol.* 16(4):412-420(2009)