

Anti-KAT2A / GCN5 Antibody (aa691-740)

Rabbit Anti Human Polyclonal Antibody Catalog # ALS18314

Specification

Anti-KAT2A / GCN5 Antibody (aa691-740) - Product Information

Application WB, IHC-P, E
Primary Accession O92830

Predicted Human, Mouse

Host Rabbit
Clonality Polyclonal
Isotype IgG

Isotype IgG
Calculated MW 93926

Anti-KAT2A / GCN5 Antibody (aa691-740) - Additional Information

Gene ID 2648

Alias Symbol KAT2A

Other Names

KAT2A, GCN5, HsGCN5, K(lysine) acetyltransferase 2A, GCN5L2, Lysine acetyltransferase 2A, Histone acetyltransferase GCN5, HGCN5, PCAF-b, STAF97

Target/Specificity

GCN5L2 Antibody detects endogenous levels of total GCN5L2 protein.

Reconstitution & Storage

Immunoaffinity purified

Precautions

Anti-KAT2A / GCN5 Antibody (aa691-740) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-KAT2A / GCN5 Antibody (aa691-740) - 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



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histone succinylation (PubMed:29211711). In different complexes, functions either as an acetyltransferase (HAT) or as a succinvitransferase: 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 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). href="http://www.uniprot.org/citations/17301242" target=" blank">17301242, PubMed:16753578, PubMed:<a $href="http://www.uniprot.org/citations/27796307" target="_blank">27796307, PubMed: 29174768). Involved in$ 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.

Anti-KAT2A / GCN5 Antibody (aa691-740) - Protocols





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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-KAT2A / GCN5 Antibody (aa691-740) - Images