

# 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:<a href="http://www.uniprot.org/citations/29211711" target="\_blank">29211711</a>, PubMed:<a href="http://www.uniprot.org/citations/35995428" target="\_blank">35995428</a>). 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:<a href="http://www.uniprot.org/citations/29211711" target="\_blank">29211711</a>). Succinylation of histones gives a specific tag for epigenetic transcription activation (PubMed:<a href="http://www.uniprot.org/citations/29211711" target="\_blank">29211711</a>). Association with the 2-oxoglutarate dehydrogenase complex, which provides succinyl-CoA, is required for



Tel: 858.875.1900 Fax: 858.875.1999

histone succinylation (PubMed:<a href="http://www.uniprot.org/citations/29211711" target=" blank">29211711</a>). 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: <a href="http://www.uniprot.org/citations/17301242" target=" blank">17301242</a>, PubMed:<a href="http://www.uniprot.org/citations/19103755" target=" blank">19103755</a>, PubMed:<a href="http://www.uniprot.org/citations/29211711" target=" blank">29211711</a>). Has significant histone acetyltransferase activity with core histones, but not with nucleosome core particles (PubMed: <a href="http://www.uniprot.org/citations/17301242" target=" blank">17301242</a>, PubMed:<a href="http://www.uniprot.org/citations/19103755" target="\_blank">19103755</a>, PubMed:<a href="http://www.uniprot.org/citations/21131905" target="blank">21131905</a>). Has a a strong preference for acetylation of H3 at 'Lys-9' (H3K9ac) (PubMed:<a href="http://www.uniprot.org/citations/21131905" target=" blank">21131905</a>). Acetylation of histones gives a specific tag for epigenetic transcription activation (PubMed:<a href="http://www.uniprot.org/citations/17301242" target=" blank">17301242</a>, PubMed:<a href="http://www.uniprot.org/citations/19103755" target="blank">19103755</a>, PubMed:<a href="http://www.uniprot.org/citations/29211711" target="blank">29211711</a>). 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: <a href="http://www.uniprot.org/citations/29973595" target=" blank">29973595</a>, PubMed:<a href="http://www.uniprot.org/citations/31527837" target="blank">31527837</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/16753578" target="blank">16753578</a>, PubMed:<a  $href="http://www.uniprot.org/citations/27796307" target="\_blank">27796307</a>, PubMed: <a href="http://www.uniprot.org/citations/29174768" target="_blank">29174768</a>). Involved in$ heart and limb development by mediating acetylation of TBX5, acetylation regulating nucleocytoplasmic shuttling of TBX5 (PubMed:<a href="http://www.uniprot.org/citations/29174768" target=" blank">29174768</a>). Acts as a negative regulator of centrosome amplification by mediating acetylation of PLK4 (PubMed: <a href="http://www.uniprot.org/citations/27796307" target=" blank">27796307</a>). Acts as a negative regulator of gluconeogenesis by mediating acetylation and subsequent inactivation of PPARGC1A (PubMed:<a href="http://www.uniprot.org/citations/16753578" target=" blank">16753578</a>, PubMed:<a href="http://www.uniprot.org/citations/23142079" target="blank">23142079</a>). 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:<a href="http://www.uniprot.org/citations/31542297" target=" blank">31542297</a>).

### **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