

**GCN5 Polyclonal Antibody**  
**Catalog # AP70058****Specification****GCN5 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q92830</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal

**GCN5 Polyclonal Antibody - Additional Information****Gene ID** 2648**Other Names**

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

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**GCN5 Polyclonal Antibody - 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 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 succinyltransferase: 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 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). Also acetylates non- histone proteins, such as CEBPB, MRE11, PPARGC1A, PLK4 and TBX5 (PubMed:<a href="http://www.uniprot.org/citations/16753578" target="\_blank">16753578</a>, PubMed:<a href="http://www.uniprot.org/citations/17301242" target="\_blank">17301242</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>, PubMed:<a href="http://www.uniprot.org/citations/38128537" target="\_blank">38128537</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

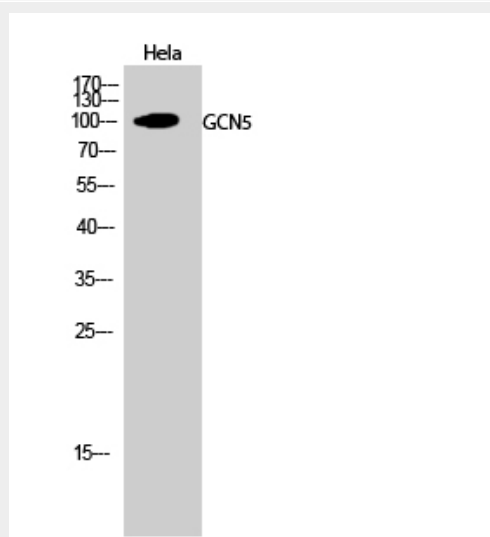
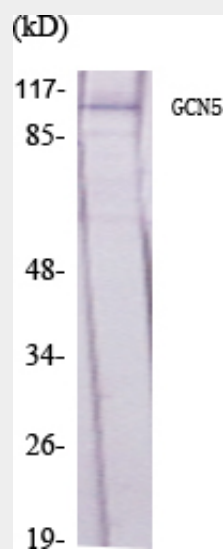
Expressed in all tissues tested.

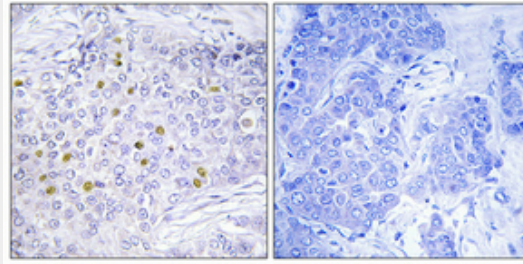
### GCN5 Polyclonal Antibody - Protocols

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](#)

### GCN5 Polyclonal Antibody - Images





### **GCN5 Polyclonal Antibody - Background**

Protein lysine acyltransferase that can act both as a acetyltransferase and succinyltransferase, depending on the context (PubMed:29211711). 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). Acetylation of histones gives a specific tag for epigenetic transcription activation (PubMed:17301242, PubMed:19103755, PubMed:29211711). 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). Also acetylates non-histone proteins, such as CEBPB, PLK4 and TBX5 (PubMed:17301242, PubMed:29174768, PubMed:27796307). 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).