

GCN5 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1078d**Specification**

GCN5 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q92830
Other Accession	Q9JHD2 , Q8N1A2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	93926
Antigen Region	65-94

GCN5 Antibody (N-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 GCN5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 65-94 amino acids from the N-terminal region of human GCN5.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

GCN5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GCN5 Antibody (N-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.

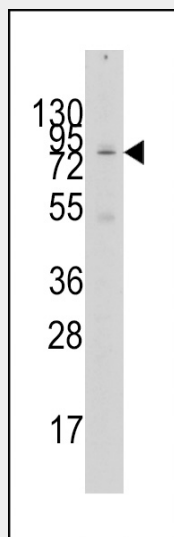
GCN5 Antibody (N-term) - Protocols

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](#)

GCN5 Antibody (N-term) - Images



Western blot analysis of anti-GCN5 Antibody (N-term)(Cat.#AP1078d) in 293 cell line lysates (35ug/lane). GCN5(arrow) was detected using the purified Pab.

GCN5 Antibody (N-term) - Background

GCN5 functions as a histone acetyltransferase (HAT) to promote transcriptional activation. Acetylation of histones gives a specific tag for epigenetic transcription activation. This protein has significant histone acetyltransferase activity with core histones, but not with nucleosome core particles.

GCN5 Antibody (N-term) - References

Sabo,A., Mol. Cell. Biol. 28 (7), 2201-2212 (2008)
Wiper-Bergeron,N., Proc. Natl. Acad. Sci. U.S.A. 104 (8), 2703-2708 (2007)
Oishi,H., J. Biol. Chem. 281 (1), 20-26 (2006)
Kikuchi,H., Gene 347 (1), 83-97 (2005)