

KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1051**Specification****KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	O14929
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 50 kDa , observed, 45 kDa
Gene Name	KDa HAT1
Aliases	HAT1; Histone Acetyltransferase 1; KAT1; Histone Acetyltransferase Type B Catalytic Subunit; EC 2.3.1.48
Immunogen	A synthesized peptide derived from human KAT1 / HAT1

KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	8520
Other Names	
Histone acetyltransferase type B catalytic subunit, 2.3.1.48, Histone acetyltransferase 1, HAT1, KAT1	

KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody - Protein Information**Name** HAT1**Synonyms** KAT1**Function**

Histone acetyltransferase that plays a role in different biological processes including cell cycle progression, glucose metabolism, histone production or DNA damage repair (PubMed:20953179, PubMed:23653357, PubMed:31278053, PubMed:32081014). Coordinates histone production and acetylation via H4 promoter binding (PubMed:31278053). Acetylates histone H4 at 'Lys-5' (H4K5ac) and 'Lys-12' (H4K12ac) and, to a lesser extent, histone H2A at 'Lys-5' (H2AK5ac) (PubMed:11585814, PubMed:22615379). Drives H4 production by chromatin binding to support

chromatin replication and acetylation. Since transcription of H4 genes is tightly coupled to S-phase, plays an important role in S-phase entry and progression (PubMed:31278053). Promotes homologous recombination in DNA repair by facilitating histone turnover and incorporation of acetylated H3.3 at sites of double-strand breaks (PubMed:23653357). In addition, acetylates other substrates such as chromatin-related proteins (PubMed:32081014). Also acetylates RSAD2 which mediates the interaction of ubiquitin ligase UBE4A with RSAD2 leading to RSAD2 ubiquitination and subsequent degradation (PubMed:31812350).

Cellular Location

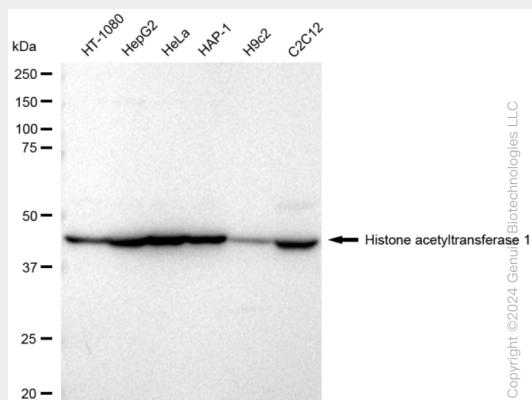
[Isoform A]: Nucleus matrix Mitochondrion

KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody - Protocols

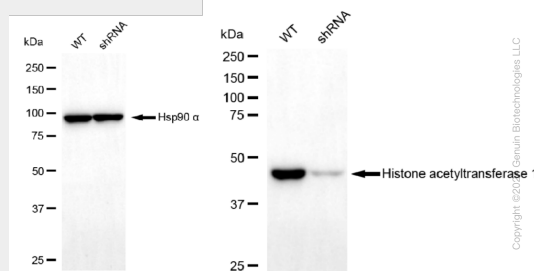
Provided below are standard protocols that you may find useful for product applications.

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

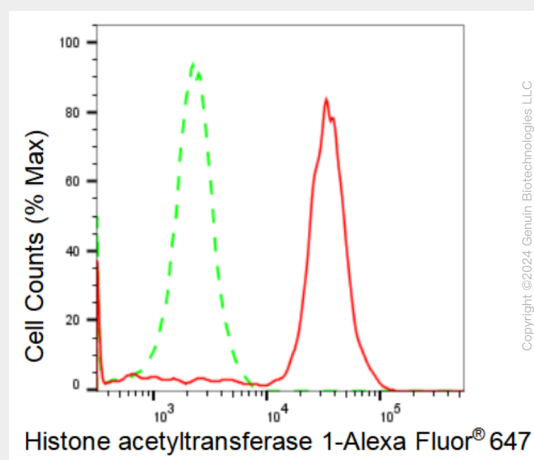
KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody - Images



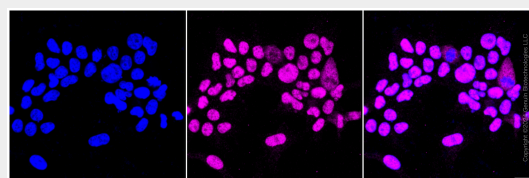
Western blotting analysis using anti-Histone acetyltransferase 1 antibody (Cat#AGI1051). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Histone acetyltransferase 1 antibody (Cat#AGI1051, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Histone acetyltransferase 1 antibody (Cat#AGI1051). Histone acetyltransferase 1 expression in wild type (WT) and histone acetyltransferase 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Histone acetyltransferase 1 antibody (Cat#AGI1051, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Histone acetyltransferase 1 expression in HeLa cells using Histone acetyltransferase 1 antibody (Cat#AGI1051, 1:2,000). Green, isotype control; red, Histone acetyltransferase 1.



Immunocytochemical staining of HeLa cells with Histone acetyltransferase 1 antibody (Cat#AGI1051, 1:1,000). Nuclei were stained blue with DAPI; Histone acetyltransferase 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.