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KD-Validated Anti-Histone acetyltransferase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1051

Product Information

Application	WB, FC, ICC
Primary Accession	O14929
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB 2090
Calculated MW	49541
Gene Name	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

Additional Information

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

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). In addition to protein acetyltransferase, can use different acyl-CoA substrates, such as 2-methylpropenoyl-CoA (methacryl-CoA), and is able to mediate histone methacrylation (PubMed:34961760).
Cellular Location	[Isoform A]: Nucleus matrix Mitochondrion

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