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HAT1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP14563a

Specification

HAT1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O14929

HAT1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 8520

Other Names
Histone acetyltransferase type B catalytic subunit, Histone acetyltransferase 1, HAT1, KAT1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HAT1 Antibody (N-term) Blocking Peptide - 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:31278053, PubMed:20953179, PubMed:23653357, 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:22615379, PubMed:11585814). 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). Acetylates also 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

HAT1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

HAT1 Antibody (N-term) Blocking Peptide - Images

HAT1 Antibody (N-term) Blocking Peptide - Background

The protein encoded by this gene is a type B histoneacetyltransferase (HAT) that is involved in the rapid acetylationof newly synthesized cytoplasmic histones, which are in turnimported into the nucleus for de novo deposition onto nascent DNAchains. Histone acetylation, particularly of histone H4, plays animportant role in replication-dependent chromatin assembly.Specifically, this HAT can acetylate soluble but not nucleosomalhistone H4 at lysines 5 and 12, and to a lesser degree, histone H2Aat lysine 5. Alternatively spliced transcript variants have beenidentified for this gene.

HAT1 Antibody (N-term) Blocking Peptide - References

Saade, E., et al. Proteomics 9(21):4934-4943(2009)Miyamoto, N., et al. J. Biol. Chem. 283(26):18218-18226(2008)Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)Lamesch, P., et al. Genomics 89(3):307-315(2007)Benson, L.J., et al. J. Biol. Chem. 282(2):836-842(2007)