

# KAT1 / HAT1 Antibody

Rabbit mAb Catalog # AP92128

### **Product Information**

**Application** WB, IHC, IF, FC, ICC, IP, IHF

Primary Accession <u>014929</u>

**Reactivity** Rat, Human, Mouse

ClonalityMonoclonalOther Nameshat1; KAT1;

IsotypeRabbit IgGHostRabbitCalculated MW49541

# **Additional Information**

**Dilution** WB 1:500~1:1000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:100

**Purification** Affinity-chromatography

Immunogen A synthesized peptide derived from human KAT1 / HAT1

**Description** Acetylates soluble but not nucleosomal histone H4 at 'Lys-5' (H4K5ac) and

'Lys-12' (H4K12ac) and, to a lesser extent, acetylates histone H2A at 'Lys-5' (H2AK5ac). Has intrinsic substrate specificity that modifies lysine in

recognition sequence GXGKXG.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

#### **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

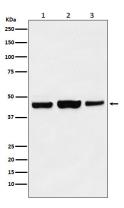
(PubMed: 23653357). In addition, acetylates other substrates such as

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

# **Images**



Western blot analysis of KAT1 / HAT1 expression in (1) MCF7 cell lysate; (2) NIH/3T3 cell lysate; (3) C6 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.