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# Rabbit Anti-KAT3A / CBP/Cy5 Conjugated antibody

SL1397R-Cy5

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| **Product Name** | Anti-KAT3A / CBP/Cy5 |
| **Chinese Name** | Cy5 标记的 CREBBinding protein 抗体 |
| **Alias** | CBP; CBP_HUMAN; CREB binding protein; CREB-binding protein; CREBBP; Cyclic AMP responsive enhancer binding protein; Cyclic AMP-responsive enhancer binding protein; KAT3A; RSTS; RTS; Rubinstein Taybi syndrome; Rubinstein-Taybi syndrome. |
| **Research Area** | Cell biology Neurobiology Signal transduction Apoptosis transcriptional regulatory factor Kinases and Phosphatases |
| **Immunogen Species** | Rabbit |
| **Clonality** | Polyclonal |
| **React Species** | Human(predicted:Mouse,Rat,Chicken,Dog,Cow,Horse) |
| **Applications** | Flow-Cyt=1ug/test,IF=1:100-500<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Molecular weight** | 265kDa |
| **Form** | Lyophilized or Liquid |
| **Concentration** | 1mg/ml |
| **immunogen** | KLH conjugated synthetic peptide derived from human CBP |
| **Lsotype** | IgG |
| **Purification** | affinity purified by Protein A |
| **Storage Buffer** | 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **Product Detail** | **background:**<br>This gene is ubiquitously expressed and is involved in the transcriptional coactivation of many different transcription factors. First isolated as a nuclear |

protein that binds to cAMP-response element binding protein (CREB), this gene is now known to play critical roles in embryonic development, growth control, and homeostasis by coupling chromatin remodeling to transcription factor recognition. The protein encoded by this gene has intrinsic histone acetyltransferase activity and also acts as a scaffold to stabilize additional protein interactions with the transcription complex. This protein acetylates both histone and non-histone proteins. This protein shares regions of very high sequence similarity with protein p300 in its bromodomain, cysteine-histidine-rich regions, and histone acetyltransferase domain. Mutations in this gene cause Rubinstein-Taybi syndrome (RTS). Chromosomal translocations involving this gene have been associated with acute myeloid leukemia. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Feb 2009].

**Function:**
Acetylates histones, giving a specific tag for transcriptional activation. Also acetylates non-histone proteins, like NCOA3 and FOXO1. Binds specifically to phosphorylated CREB and enhances its transcriptional activity toward cAMP-responsive genes. Acts as a coactivator of ALX1 in the presence of EP300.

**Subunit:**
Found in a complex containing NCOA2; NCOA3; IKKA; IKKB and IKBKG. Probably part of a complex with HIF1A and EP300. Interacts with GATA1; the interaction results in acetylation and enhancement of transcriptional activity of GATA1. Interacts with MAF AND ZCCHC12. Interacts with DAXX; the interaction is dependent on CBP sumoylation and results in suppression of the transcriptional activiy via recruitment of HDAC2 to DAAX. Interacts with phosphorylated CREB1. Interacts with CITED4 (C-terminal region). Interacts (via the TAZ-type 1 domain) with HIF1A. Interacts with SRCAP, CARM1, ELF3, MLLT7/FOXO4, N4BP2, NCOA1, NCOA3, NCOA6, PCAF, DDX5, DDX17, PELP1, PML, SMAD1, SMAD2, SMAD3, SPIB and TRERF1. Interacts with HTLV-1 Tax and p30II. Interacts with HIV-1 Tat. Interacts with KLF1; the interaction results in acetylation of KLF1 and enhancement of its transcriptional activity. Interacts with MTDH. Interacts with NFATC4. Interacts with MAFG; the interaction acetylates MAFG in the basic region and stimulates NFE2 transcriptional activity through increasing its DNA-binding activity. Interacts with IRF2; the interaction acetylates IRF2 and regulates its activity on the H4 promoter. Interacts (via N-terminus) with SS18L1/CREST (via C-terminus). Interacts with MECOM. Interacts with CITED1 (via C-terminus). Interacts with FOXO1; the interaction acetylates FOXO1 and inhibits its transcriptional activity.

**Subcellular Location:**
Cytoplasm. Nucleus. Note=Recruited to nuclear bodies by SS18L1/CREST. In the presence of ALX1 relocalizes from the cytoplasm to the nucleus.

**Post-translational modifications:**
Methylation of the KIX domain by CARM1 blocks association with CREB. This results in the blockade of CREB signaling, and in activation of apoptotic response.
Phosphorylated upon DNA damage, probably by ATM or ATR.
Phosphorylated by CHUK/IKKA at Ser-1382 and Ser-1386; these phosphorylations promote cell growth by switching the binding preference of CREBBP from TP53 to NF-kappa-B.
Sumoylation negatively regulates transcriptional activity via the recruitment of DAAX.

**DISEASE:**
Note=Chromosomal aberrations involving CREBBP may be a cause of acute myeloid leukemias. Translocation t(8;16)(p11;p13) with KAT6A; translocation t(11;16)(q23;p13.3) with MLL/HRX; translocation t(10;16)(q22;p13) with KAT6B. KAT6A-CREBBP may induce leukemia by inhibiting RUNX1-mediated transcription.
Defects in CREBBP are a cause of Rubinstein-Taybi syndrome type 1 (RSTS1) [MIM:180849]. RSTS1 is an autosomal dominant disorder characterized by craniofacial abnormalities, broad thumbs, broad big toes, mental retardation and a propensity for development of malignancies.

**Similarity:**
Contains 1 bromo domain.
Contains 1 KIX domain.
Contains 2 TAZ-type zinc fingers.
Contains 1 ZZ-type zinc finger.

**Database links:**

Entrez Gene: 1387 Human

Entrez Gene: 12914 Mouse

Omim: 600140 Human

SwissProt: Q92793 Human

SwissProt: P45481 Mouse

Unigene: 459759 Human

Unigene: 132238 Mouse

Unigene: 392384 Mouse

**Important Note:**
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

transcriptional regulatory factor（Transcriptin Regulators）
CREBBinding protein(CBP)在环腺苷酸应答元件 Binding proteinCREB,核受体 Signal transduction 子和转录激活子 STATl 等转录因子的激活过程中, CBP 是必不可少的激活蛋白.