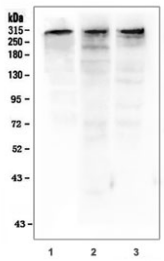
p300 Antibody / KAT3B Antibody (R31592)

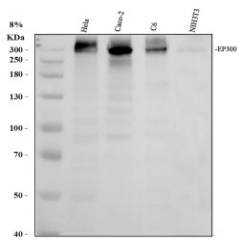
Catalog No.	Formulation	Size
R31592	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

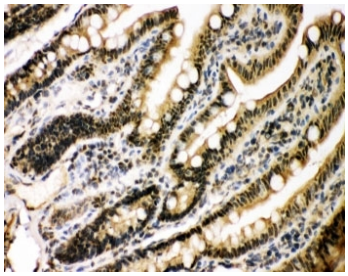
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
Gene ID	2033
Localization	Intracellular
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This p300 Antibody / KAT3B Antibody is available for research use only.



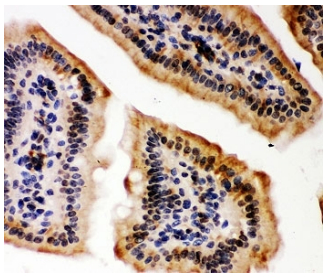
p300 Antibody Human, Rat and Mouse WB. Western blot testing of human COLO-320 (lane 1), rat PC-12 (lane 2), and mouse NIH 3T3 (lane 3) cell lysates with p300 Antibody demonstrates a prominent immunoreactive band near the predicted molecular weight of approximately 300 kDa. Detection across all three species supports recognition of p300/KAT3B in diverse mammalian cell models. This p300 Antibody, also called KAT3B Antibody, supports studies of histone acetylation, chromatin regulation, transcriptional control, and epigenetic signaling.



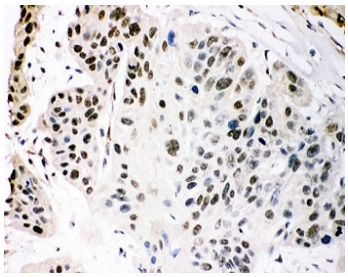
p300 Antibody Human, Rat and Mouse Cell WB. Western blot analysis of human HeLa (lane 1), human Caco-2 (lane 2), rat C6 (lane 3), and mouse NIH3T3 (lane 4) cell lysates with p300 Antibody at 0.5 ug/ml demonstrates a prominent band at approximately 300 kDa. The calculated molecular weight of KAT3B/EP300 is approximately 264 kDa. This p300 Antibody, also called KAT3B Antibody, supports studies of histone acetylation, chromatin regulation, transcriptional control, and epigenetic signaling.



p300 Antibody Rat Intestine IHC. Immunohistochemical staining of FFPE rat intestine tissue with p300 Antibody demonstrates KAT3B/EP300 expression. Heat-induced epitope retrieval was performed in pH6 citrate buffer for 20 minutes, followed by blocking with 10% goat serum. Sections were incubated with p300 Antibody at 1 ug/ml overnight at 4Â°C and developed using SABC with DAB chromogen. Brown staining is observed in the intestinal tissue, with hematoxylin counterstaining in blue. This p300 Antibody, also called KAT3B Antibody, supports studies of histone acetylation, chromatin regulation, and transcriptional control.



p300 Antibody Mouse Intestine IHC. Immunohistochemical staining of FFPE mouse intestine tissue with p300 Antibody demonstrates KAT3B/EP300 expression. Heat-induced epitope retrieval was performed in pH6 citrate buffer for 20 minutes, followed by blocking with 10% goat serum. Sections were incubated with p300 Antibody at 1 ug/ml overnight at 4Â°C and developed using SABC with DAB chromogen. Brown staining is observed in the intestinal tissue, with hematoxylin counterstaining in blue. This p300 Antibody, also called KAT3B Antibody, supports studies of histone acetylation, chromatin regulation, and transcriptional control.



p300 Antibody Human Esophageal Cancer IHC. Immunohistochemical staining of FFPE human esophageal squamous cell carcinoma tissue with p300 Antibody demonstrates KAT3B/EP300 expression. Heat-induced epitope retrieval was performed in pH6 citrate buffer for 20 minutes, followed by blocking with 10% goat serum. Sections were incubated with p300 Antibody at 1 ug/ml overnight at 4Â°C and developed using SABC with DAB chromogen. Brown nuclear staining is observed in tumor cells, with hematoxylin counterstaining in blue. This p300 Antibody, also called KAT3B Antibody, supports studies of chromatin regulation, transcriptional control, and cancer biology.

Description

p300 Antibody / KAT3B Antibody recognizes p300, a transcriptional coactivator and lysine acetyltransferase encoded by the EP300 gene. Also known as KAT3B, p300 regulates gene expression by modifying histones and numerous non-histone proteins and by serving as a molecular scaffold for transcription factors and other regulatory proteins. Closely related to CREB-binding protein (CBP/KAT3A), p300 participates in chromatin remodeling, transcriptional activation, cell proliferation, differentiation, development, and cellular responses to environmental signals. Its broad involvement in transcriptional regulation makes p300 an important target in epigenetics and chromatin biology.

KAT3B possesses intrinsic lysine acetyltransferase activity and acetylates histone proteins to alter chromatin accessibility and facilitate transcription. p300 is particularly associated with active promoters and enhancers, where it helps coordinate transcription factor activity with chromatin modification and recruitment of the transcriptional machinery. Acetylation of histone H3 at lysine 27 is strongly associated with active regulatory elements and is commonly linked to p300/CBP activity. A p300 Antibody can therefore support studies of transcriptional regulation, enhancer biology, histone acetylation, chromatin organization, and epigenetic control of gene expression.

In addition to histones, p300 acetylates and interacts with numerous transcription factors and regulatory proteins, including p53, HIF-1, nuclear hormone receptors, and components of inflammatory signaling pathways. These interactions connect EP300 activity with DNA damage responses, hypoxia, metabolism, immunity, cell cycle regulation, apoptosis, and differentiation. The ability of p300 to integrate multiple signaling pathways allows cells to translate extracellular and intracellular signals into changes in gene expression. A KAT3B Antibody is consequently relevant to research spanning transcriptional signaling, stress responses, developmental biology, and cellular differentiation.

Alterations in EP300 expression or function are associated with human disease, particularly cancer and developmental disorders. Somatic EP300 mutations and other disruptions of p300 activity have been identified in multiple malignancies,

supporting context-dependent roles in tumor suppression and oncogenic transcriptional programs. Germline alterations in EP300 can also cause Rubinstein-Taybi syndrome type 2, reflecting the importance of p300-mediated transcriptional regulation during development. NSJ Bioreagents offers antibodies for studying epigenetic regulators, transcription factors, and related signaling proteins. A p300 Antibody is useful for investigating KAT3B/EP300 expression, histone acetylation, enhancer activity, chromatin regulation, transcriptional control, DNA damage responses, and cancer biology.

Explore our Epigenetics Antibodies page to find additional antibodies for studying histone modification, chromatin regulation, transcriptional control, and epigenetic signaling.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the p300 Antibody / KAT3B Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Human partial recombinant protein (AA 2065-2414) was used as the immunogen for this KAT3B / p300 antibody.

Storage

After reconstitution, the p300 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

p300 antibody, KAT3B antibody, EP300 antibody, Histone Acetyltransferase KAT3B antibody, E1A Binding Protein p300 antibody, E1A-Associated Protein p300 antibody

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