

Datasheet for 100-301-176**p300 Antibody****Overview**

Description:	Anti-Human p300 Transcription Factor (MOUSE) Monoclonal Antibody - 100-301-176
Item No.:	100-301-176
Size:	100 µL
Applications:	IP, WB, ChIP, EMSA
Reactivity:	Human
Host Species:	Mouse

Product Details**Background:**

Histone acetyltransferase p300 functions as histone acetyltransferase and regulates transcription via chromatin remodeling. Acetylates all four core histones in nucleosomes. Which gives an epigenetic tag for transcriptional activation. It mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. It mediates acetylation of histone H3 at 'Lys-122' (H3K122ac), a modification that localizes at the surface of the histone octamer and stimulates transcription, possibly by promoting nucleosome instability and mediates acetylation of histone H3 at 'Lys-27' (H3K27ac). It also functions as acetyltransferase for nonhistone targets. It acetylates 'Lys-131' of ALX1 and acts as its coactivator. It acetylates SIRT2 and is proposed to indirectly increase the transcriptional activity of TP53 through acetylation and subsequent attenuation of SIRT2 deacetylase function and acetylates HDAC1 leading to its inactivation and modulation of transcription. p300 acts as a TFAP2A-mediated transcriptional coactivator in presence of CITED2. It plays a role as a coactivator of NEUROD1-dependent transcription of the secretin and p21 genes and controls terminal differentiation of cells in the intestinal epithelium. It promotes cardiac myocyte enlargement and can also mediate transcriptional repression. It binds to and may be involved in the transforming capacity of the adenovirus E1A protein. In the case of HIV-1 infection, it is recruited by the viral protein Tat. p300 regulates Tat's transactivating activity and may help inducing chromatin remodeling of proviral genes. It acetylates FOXO1 and enhances its transcriptional activity. It acetylates BCL6 which disrupts its ability to recruit histone deacetylases and hinders its transcriptional repressor activity. It participates in CLOCK or NPAS2-regulated rhythmic gene transcription; exhibits a circadian association with CLOCK or NPAS2, correlating with increase in PER1/2 mRNA and histone H3 acetylation on the PER1/2 promoter. It acetylates MTA1 at 'Lys-626' which is essential for its transcriptional coactivator activity.

Synonyms:	Histone acetyltransferase p300, p300 HAT, E1A-associated protein p300, EP300
Host Species:	Mouse

Clonality:	Monoclonal
Clone ID:	AC240
Format:	CCS

Target Details

Gene Name:	EP300
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	p300 peptide corresponding to a region near the N-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This product was prepared from tissue culture supernatant.
Relevant Links:	• UniProtKB - Q09472 • NCBI - Q09472.2 • GeneID - 2033

Application Details

Tested Applications:	IP, WB
Suggested Applications:	ChIP, EMSA (Based on references)
Application Note:	This product was tested by immunoblot and found to be reactive against p300 at a dilution of 1:10 to 1:50 followed by reaction with Peroxidase conjugated Affinity Purified anti-Mouse IgG [H&L] (Goat) code #610-1302. Anti-p300 is suitable for the detection by immunoblot of human p300. Partial reaction was observed against the CREB binding Protein (CBP). This product was also tested by immunoprecipitation and found to be reactive using 50 µl per assay. This antibody is suitable for EMSA and ChIP.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
IP:	50µL
WB:	1:500 - 1:3,000

Formulation

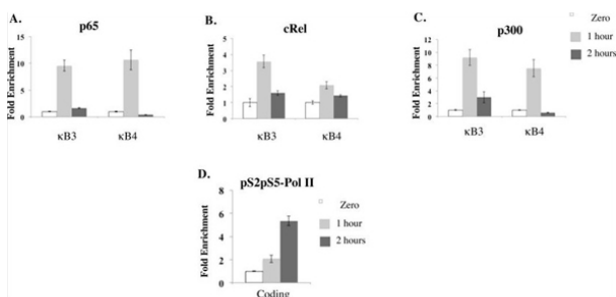
Physical State:	Liquid (sterile filtered)
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Concentration:	50.0 µg/mL by UV absorbance at 280 nm
Buffer:	None
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ChIP

NF-κB complexes are recruited to the EIF4E promoter and promote transactivation. BJAB cells were stimulated with PMA for 0, 1 or 2 hours and subjected to chromatin immunoprecipitation using antibodies specific for (A) NFKB p65 (p/n 100-4165), (B) cRel, (C) p300 transcription factor (p/n 100-301-176) and phosphorylated Pol II (Ser2/Ser5) (D). Data were normalized to IgG control and represented as fold enrichment with respect to untreated cells. Error bars represent standard deviations from triplicate measurements of a representative experiment. Figure 3. PMID: 23467026

References

- Hariri F et al. The eukaryotic translation initiation factor eIF4E is a direct transcriptional target of NF-κB and is aberrantly regulated in acute myeloid leukemia. *Leukimia* (2013)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.