diagenode
A Hologic Company

[1] *Manufactured by Bethyl Laboratories, Inc., Texas, USA*

TECHNICAL DATASHEET

KAT2B polyclonal antibody

Other names: PCAF

Cat. No. C15410335
Type: Polyclonal **ChIP grade**
Source: Rabbit
Lot #: A301-666A2
Size: 100 µl
Concentration: 1 µg/µl

Specificity: Human: positive. Other species: not tested
Purity: Affinity purified polyclonal antibody in Tris-citrate/ phosphate buffer containing 0.09% azide.
Storage: Store at 4°C
Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures

Description: Polyclonal antibody raised in rabbit against human KAT2B (Lysine Acetyltransferase 2B), using a synthetic peptide containing a sequence from the C-terminal part of the protein[1].

Applications

	Suggested dilution	Results
ChIP*	2 µg per IP	Fig 1, 2
Western blotting	1:1,000	Fig 3

* Please note that the optimal antibody amount per ChIP should be determined by the end-user. We recommend testing 1-5 µg per ChIP.

Target description

KAT2B (UniProtKB/Swiss-Prot entry Q92831) functions as a histone acetyltransferase, thereby promoting transcriptional activation. KAT2B binds with CBP and p300 where it competes with the adenoviral oncoprotein E1A for binding sites and as such counteracts the mitogenic activity of E1A. KAT2B also acts as a circadian transcriptional coactivator which enhances the activity of the circadian transcriptional activators NPAS2-ARNTL/BMAL1 and CLOCK-ARNTL/BMAL1 heterodimers.

Results

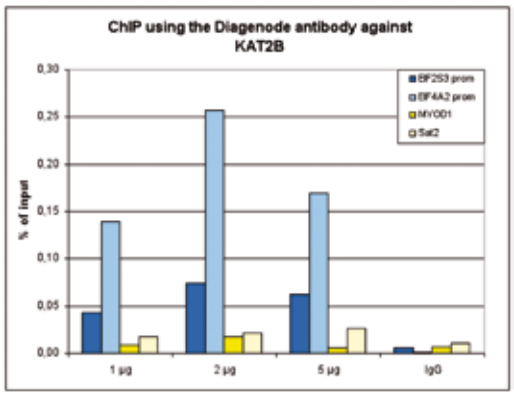

Figure 1. ChIP results obtained with the Diagenode antibody directed against KAT2B

ChIP assays were performed using K562 cells, the Diagenode antibody against KAT2B (Cat. No. C15410335) and optimized PCR primer sets for qPCR. ChIP was performed with the "iDeal ChIP-seq" kit (Cat. No. C01010055), using sheared chromatin from 4 million cells. A titration consisting of 1, 2 and 5 µg of antibody per ChIP experiment was analyzed. IgG (2 µg/IP) was used as a negative IP control. Quantitative PCR was performed with primers for the promoters of the EIF2S3 and EIF4A2 genes, used as positive controls, and for the MYOD1 gene and the Sat2 satellite repeat, used as negative controls.

Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

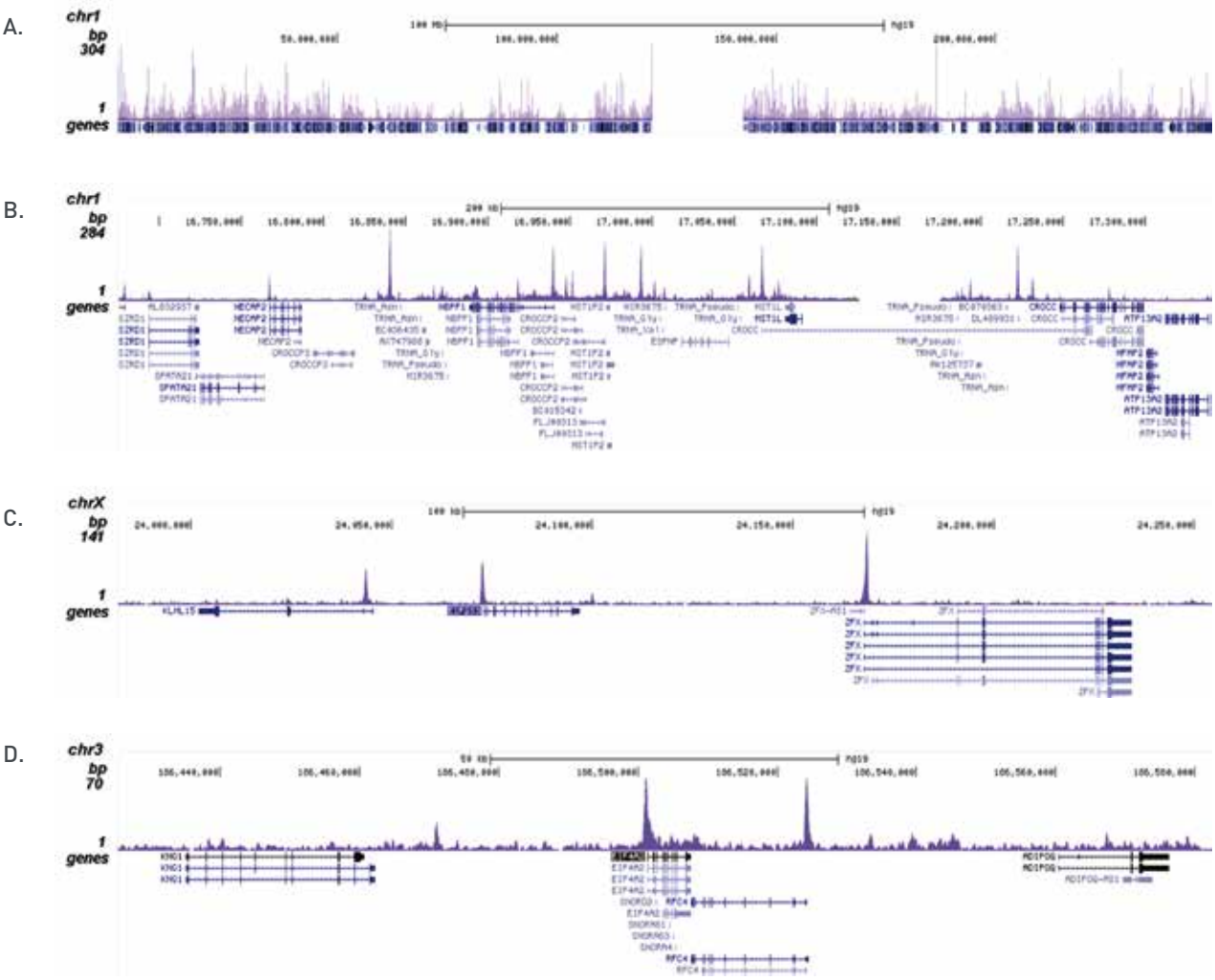

Figure 2. ChIP-seq results obtained with the Diagenode antibody directed against KAT2B

ChIP was performed on sheared chromatin from 4 million KAT2B cells using 2 µg of the Diagenode antibody against KAT2B (cat. No. C15410335) as described above. The IP'd DNA was subsequently analysed on an Illumina HiSeq. Library preparation, cluster generation and sequencing were performed according to the manufacturer's instructions. The 50 bp tags were aligned to the human genome using the BWA algorithm. Figure 2 shows the enrichment along the complete sequence and a 500 kb region of human chromosome 1 (fig 2A and B), and in two genomic regions surrounding the EIF2S3 and EIF4A2 positive control genes (fig 2C and D).

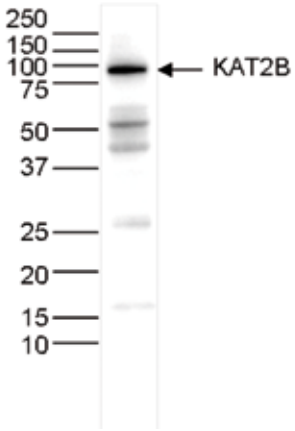

Figure 3. Western blot analysis using the Diagenode antibody directed against KAT2B

Whole cell extracts from HeLa cells were analysed by Western blot using the Diagenode antibody against KAT2B (Cat. No. C15410335) diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.

Diagenode sa. BELGIUM | **EUROPE**

LIEGE SCIENCE PARK
Rue Bois Saint-Jean, 3
4102 Seraing (Ougrée) - Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
orders@diagenode.com
info@diagenode.com

Diagenode Inc. USA | **NORTH AMERICA**

400 Morris Avenue, Suite 101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com

Last update: January 13, 2017