HDAC6 polyclonal antibody

Cat. No. C15410362

Type: Polyclonal	Specificity: Human: positive. Other species: not tested.
Size: 50 µg	Isotype: NA
Concentration: 0.5 µg/µl	Source: Rabbit
Lot No.: A2850P	Purity: Affinity purified polyclonal antibody.
Storage buffer: PBS containing 0.05% azide.	Storage conditions: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.
Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.	

Last Data Sheet Update: October 23, 2018

Description

Other names: HD6, PPP1R90, CPBHM, JM21

Polyclonal antibody raised in rabbit against human HDAC6 (Histone deacetylase 6), using two KLH-conjugated synthetic peptides from the N-terminal and the central part of the protein, respectively.

Applications

Applications	Suggested dilution	References
ChIP/ChIP-seq*	3 µg/ChIP	Fig 1, 2
ELISA	1:1,000	Fig 3
Western Blotting	Not recommended	

Target Description

HDAC6 (UniProt/Swiss-Prot entry Q9UBN7) belongs to class II of the histone deacetylase family. These enzymes catalyse the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation plays an important role in transcriptional regulation, cell cycle progression and developmental events. HDAC6 also plays a key role in the degradation of misfolded proteins and in microtubule-dependent cell motility via deacetylation of tubulin and is involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer.

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Validation data

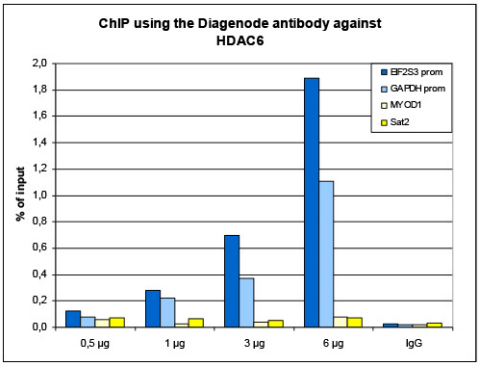

Figure 1. ChIP results obtained with the Diagenode antibody directed against HDAC6

ChIP was performed with the Diagenode antibody against HDAC6 (cat. No. C15410362) on sheared chromatin from 4,000,000 HeLa cells with the iDeal ChIP-seq kit for TF's. An antibody titration consisting of 0.5, 1, 3 and 6 µg per ChIP experiment was analysed. IgG (1 µg/IP) was used as negative IP control. QPCR was performed with primers specific for the GAPDH and EIF4A2 promoters, 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).

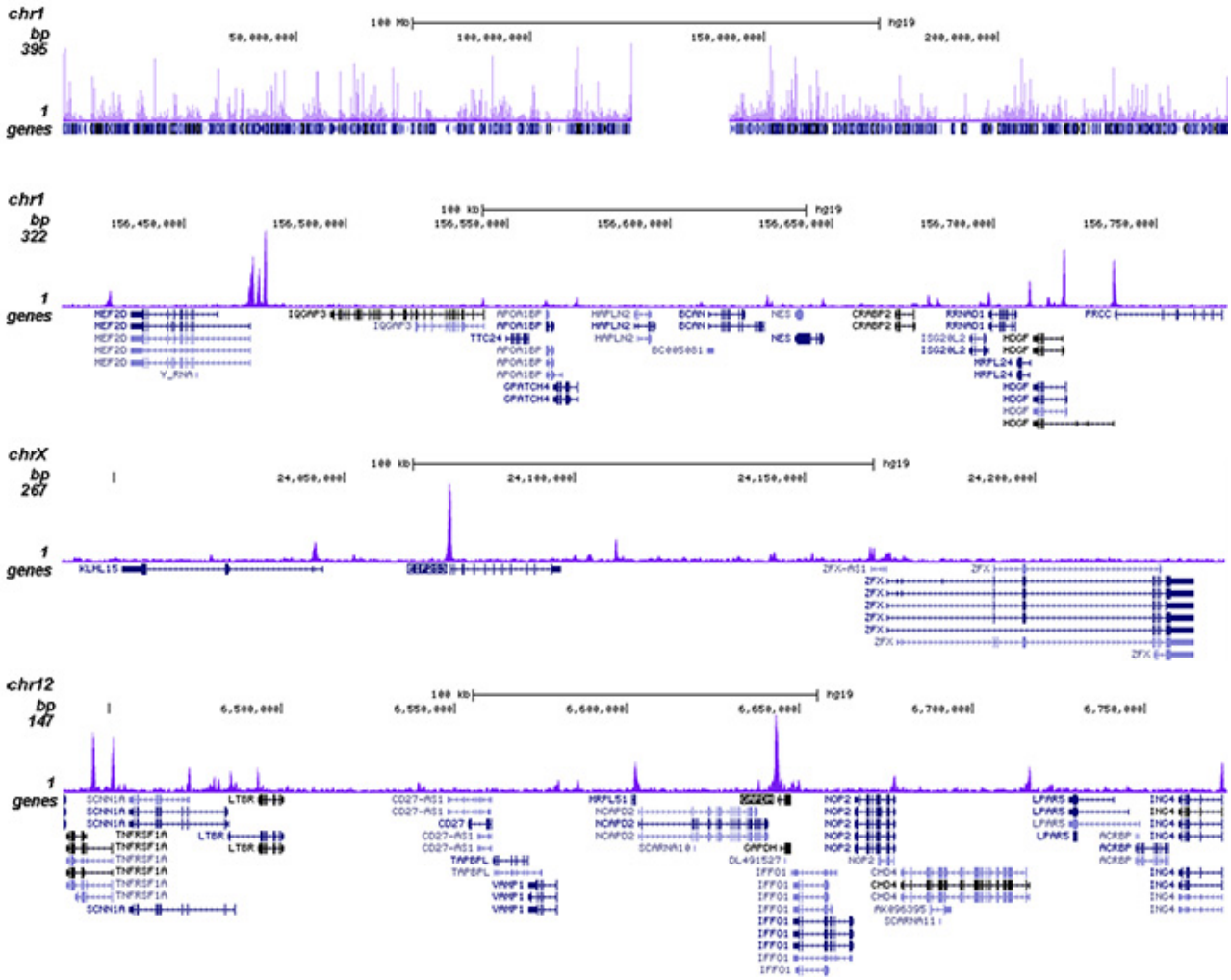

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Figure 2. ChIP-seq results obtained with the Diagenode antibody directed against HDAC6

ChIP was performed on sheared chromatin from 4,000,000 HeLa cells using 3 µg of the Diagenode antibody against HDAC6 (cat. No. C15410362) as described above. The IP'd DNA was subsequently analysed on an Illumina HiSeq 4000. 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 peak distribution along the complete sequence and a 300 kb region of chromosome 1 (figure 2A and B) and in two genomic regions surrounding the EIF2S3 and GAPDH positive control genes, respectively (figure 2C and D).

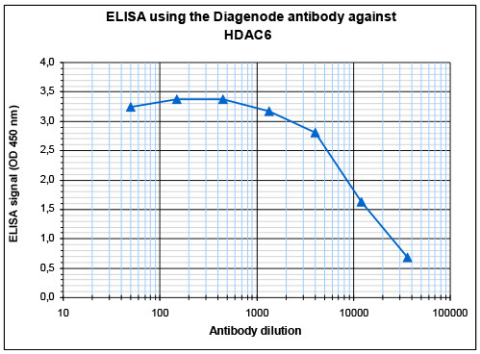

Figure 3. Determination of the antibody titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of Diagenode antibody directed against HDAC6 (cat. No. C15410362). The plates were coated with the peptides used for immunization of the rabbit. By plotting the absorbance against the antibody dilution (Figure 3), the titer of the antibody was estimated to be 1:11,400.

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