diagenode
A Hologic Company

ChIP-seq grade

TECHNICAL DATASHEET

CBX2 polyclonal antibody

Other names: SRXY5, CDCA6, M33

Cat. No. C15410339
Type: Polyclonal **ChIP grade/ChIP-seq grade**
Source: Rabbit
Lot #: A302-524A3
Size: 100 µl
Concentration: 1 µg/µl

Specificity: Human: positive
Other species: not tested
Purity: Affinity purified polyclonal antibody in Tris-citrate 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 CBX2 (chromobox 2), using a synthetic peptide containing a sequence from the C-terminus of the protein[1].

Applications

Applications	Suggested dilution	References
ChIP*	1 µg per ChIP	Fig 1, 2
Western blotting	1:1,000	Fig 3
IP	6 µg per IP	Fig 4

*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

CBX2 (UniProtKB/Swiss-Prot entry Q14781) is a component of the PRC1-like polycomb multiprotein complex, which is required to maintain the transcriptionally repressive state of many genes throughout development via chromatin remodeling and modification of histones. The PRC1 complex mediates monoubiquitination of histone H2A on lysine 119, introducing heritably changed expression. CBX2 is involved in sexual development. Mutations in CBX2 are associated with gonadal dysgenesis in humans.

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

Results

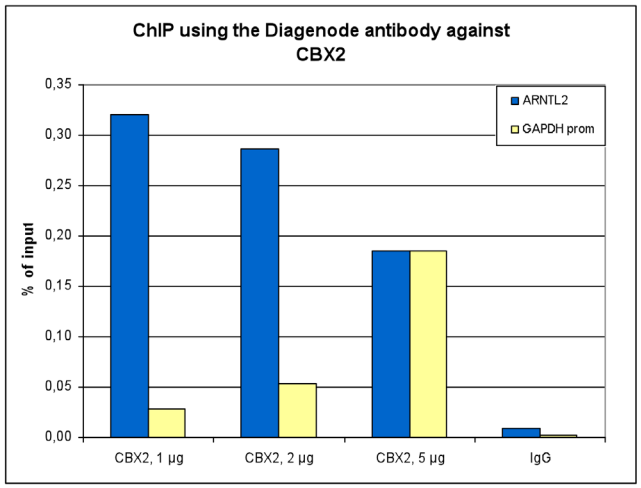

Figure 1. ChIP results obtained with the Diagenode antibody directed against CBX2

ChIP assays were performed using K562 cells, the Diagenode antibody against CBX2 (Cat. No. C15410339) 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 ARNTL2 gene, used as positive control, and for the promoter of the GAPDH gene, used as negative control.

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

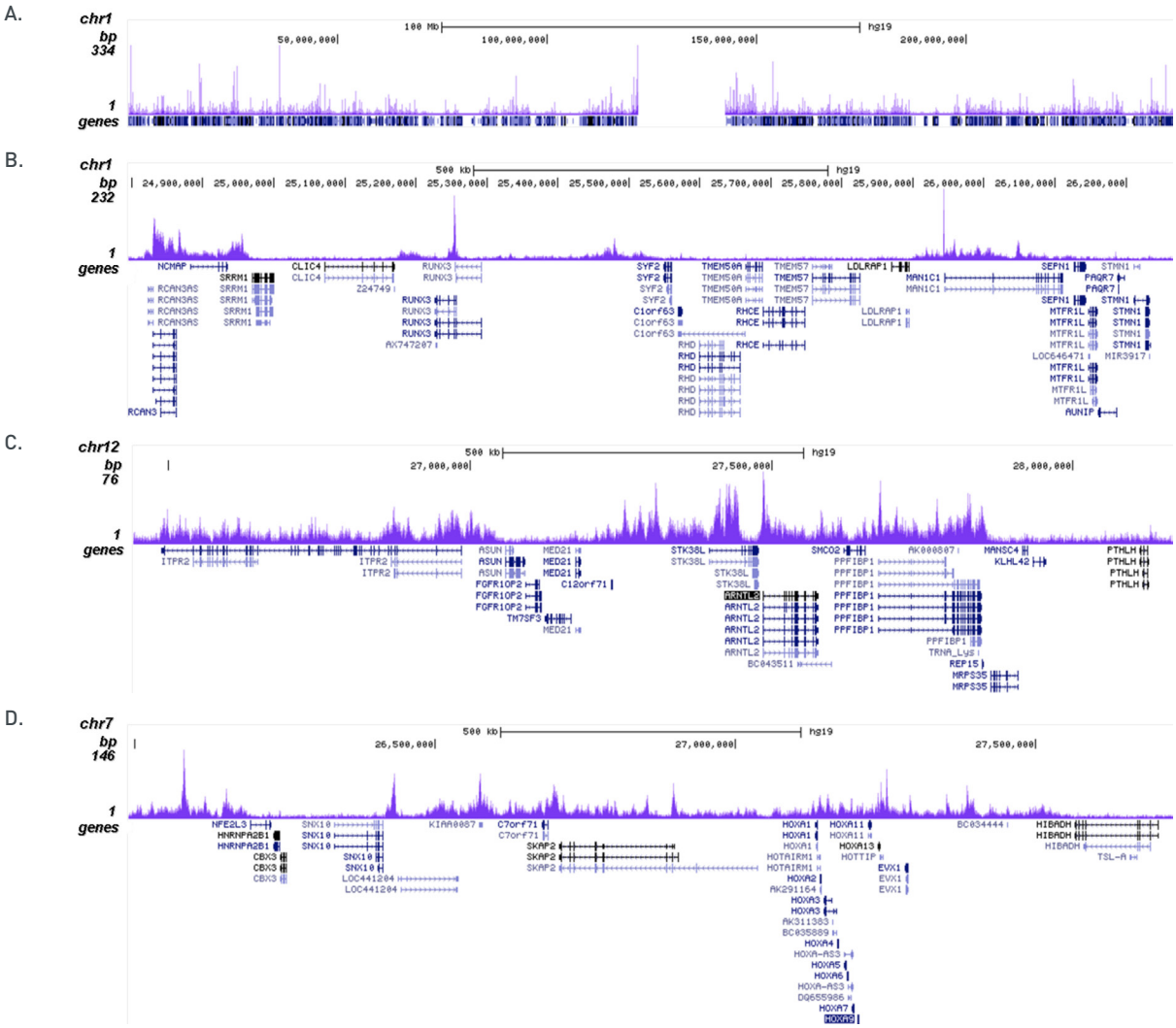

Figure 2. ChIP-seq results obtained with the Diagenode antibody directed against CBX2

ChIP was performed on sheared chromatin from 4 million K562 cells using 1 µg of the Diagenode antibody against CBX2 (Cat. No. C15410339) 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 1.5 Mb region of the human chromosome 1 (fig 2A and B), and in two genomic regions surrounding the ARNTL2 positive control gene and the HOXA9 cluster (fig 2C and D).

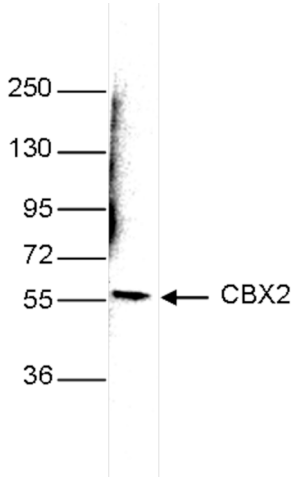

Figure 3. Western blot analysis using the Diagenode antibody directed against CBX2

Whole cell extracts from HeLa cells were analysed by Western blot using the Diagenode antibody against CBX2 (Cat. No. C15410339) 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.

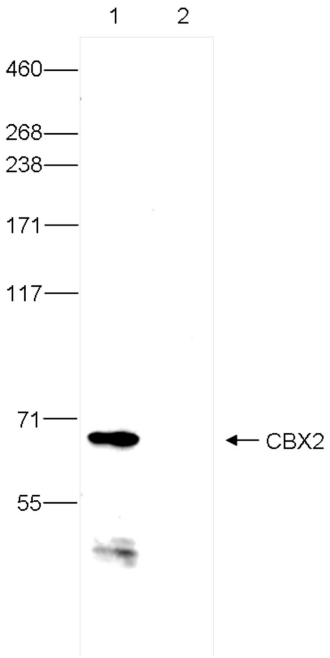

Figure 4. Immunoprecipitation using the Diagenode antibody directed against CBX2

Immunoprecipitation was performed on whole cell extracts from 293T cells using 6 µg of the Diagenode antibody against CBX2 (Cat. No. C15410339, lane 1). An equal amount of rabbit IgG was used as a negative control (lane 2). The immunoprecipitated CBX2 protein was detected by western blot with the CBX2 antibody diluted 1:1,000.

Diagenode sa. BELGIUM | **EUROPE**
LIEGE SCIENCE PARK
Rue du Bois Saint-Jean, 3
4102 Seraing - 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: June 20, 2017