diagenode
A Hologic Company

TECHNICAL DATASHEET

RNF2 polyclonal antibody - Classic

Other name: RING1B, RING2, BAP1, BAP-1, DING, HIPI3

Cat. No. C15410313

Type: Polyclonal **ChIP-grade / ChIP-seq-grade**

Source: Rabbit

Lot #: 001

Size: 50 µg /50 µl

Concentration: 1 µg/µl

Specificity: Human, mouse: positive / Other species: not tested

Purity: Affinity purified polyclonal antibody in PBS containing 0.02% azide and 50% glycerol.

Storage: 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

Description : Polyclonal antibody raised in rabbit against human RNF2 (Ring Finger Protein 2), using a recombinant protein.

Applications

Applications	Suggested dilution/amount	Results
ChIP*	2 µg/ChIP	Fig 1, 2
Western blotting	1:1,000	Fig 3
IF	1:200	Fig 4

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

Target description

RNF2 (UniProt/Swiss-Prot entry Q99496) is an essential component of the PRC1 Polycomb group (PcG) protein complex. PcG proteins form multiprotein complexes that are important for the transcriptional repression of various genes involved in development and cell proliferation. The PRC1 complex. mediates monoubiquitination of 'Lys-119' of histone H2A (H2AK119Ub), thereby playing a central role in the histone code and in gene regulation. H2AK119Ub gives a specific tag for epigenetic transcriptional repression. It is required to maintain the transcriptionally repressive state of many genes, including Hox genes and participates in X chromosome inactivation of female mammals. PRC1 may also be involved in the initiation of both imprinted and random X inactivation.

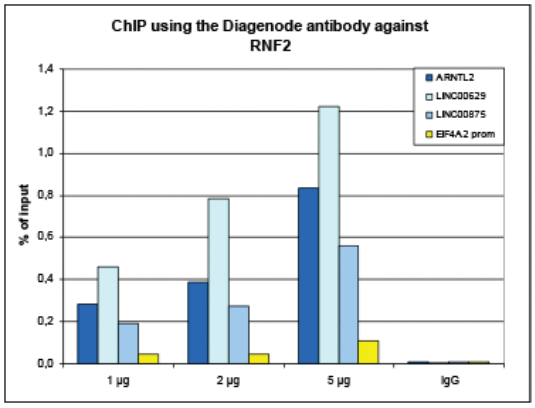

Figure 1. ChIP results obtained with the Diagenode antibody directed against RNF2

ChIP assays were performed using K562 cells, the Diagenode antibody against RNF2 (cat. No. C15410313) 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 optimized primers for the ARNTL2 gene and the non coding RNA genes LINC00629 and LINC00875, used as positive controls, and for the EIF4A2 promoter, used as a 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).

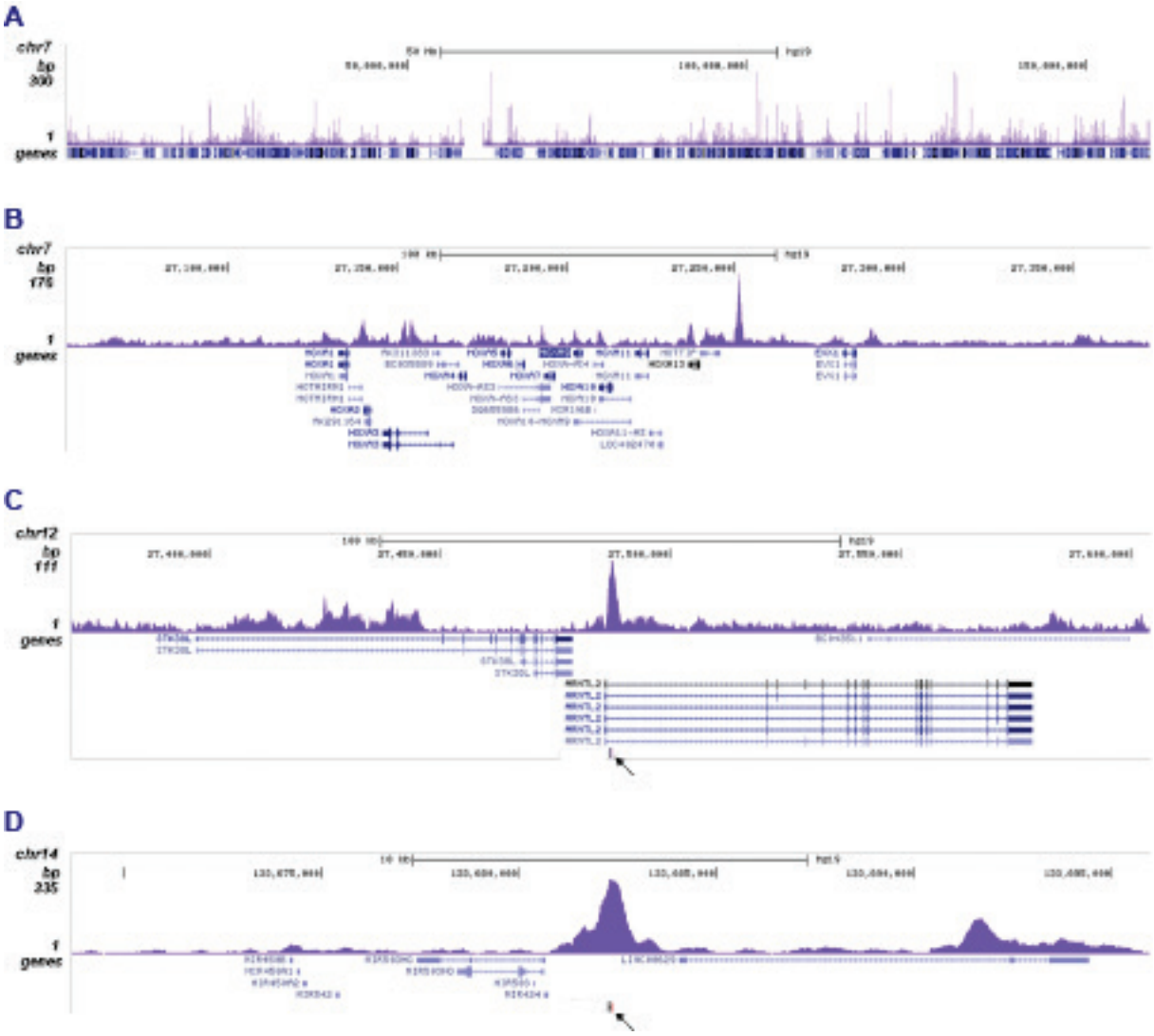

Figure 2. ChIP-seq results obtained with the Diagenode antibody directed against RNF2

ChIP was performed on sheared chromatin from 4,000,000 K562 cells using 2 µg of the Diagenode antibody against RNF2 (Cat. No. C15410313) as described above. The IP'd DNA was subsequently analysed on an Illumina HiSeq 2000. 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 surrounding the HOX cluster of chromosome 7 (figure 2A and B) and in two regions surrounding the ARNTL2 and LINC00629 positive control genes, respectively (figure 2C and D). The position of the amplicon used for ChIP-qPCR is indicated by an arrow.

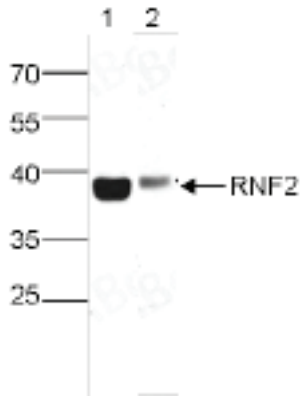

Figure 3. Western blot analysis using the Diagenode antibody directed against RNF2

Whole cell extracts from Jurkat cells (lane 1) and mouse testis (lane 2) were analysed by Western blot using the Diagenode antibody against RNF2 (Cat. No. C15410313) diluted 1:1,000. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.

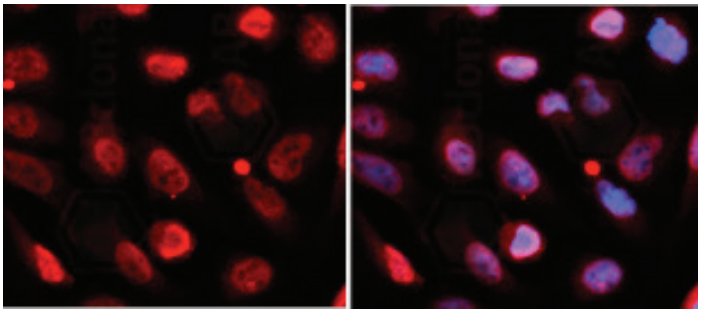

Figure 4. Immunofluorescence using the Diagenode antibody directed against RNF2

U2OS cells were stained with the Diagenode antibody against RNF2 (Cat. C15410313) diluted 1:200 (left). The right panel shows costaining of the nuclei with DAPI.

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: May 13, 2015