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Product datasheet for TA347086

CBFB Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA
Recommended Dilution:	ChIP/ChIP-seq (4ul/ChIP); ELISA (1:1,000)
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-CBFb antibody: human CBFb (core-binding factor, beta subunit) using two KLH-conjugated synthetic peptides containing sequences from the central region of the protein.
Concentration:	lot specific
Purification:	Whole antiserum from rabbit containing 0.05% azide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	core-binding factor, beta subunit
Database Link:	NP_001746 Entrez Gene 865 Human Q13951
Background:	CBFb (UniProtKB/Swiss-Prot entry Q13951) represents the beta subunit of a heterodimeric core-binding transcription factor belonging to the PEBP2/CBF transcription factor family. These transcription factors regulate a host of genes specific to haematopoiesis (e.g. RUNX1) and osteogenesis (e.g. RUNX2). The beta subunit is the regulatory subunit which allosterically enhances the activity of the DNA binding alpha subunit as the complex binds to the core site of various enhancers and promoters. CBFb can be involved in a chromosomal rearrangement of chromosome 16 (inv(16)(p13q22)) which produces a fusion protein consisting of the N terminus of CBFb and the C-terminal portion of MYH11. This chromosomal rearrangement is associated with acute myeloid leukaemia of the M4Eo subtype.

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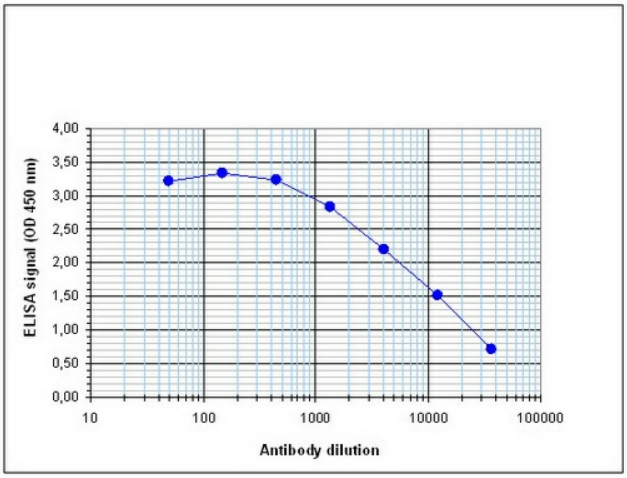
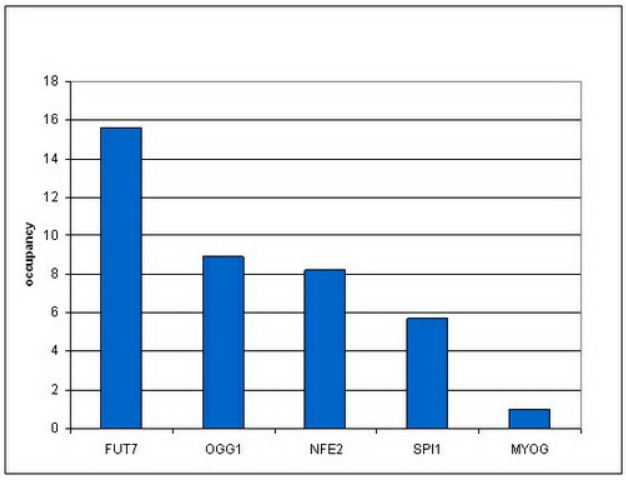
Synonyms: PEBP2B

Protein Families: Druggable Genome, Transcription Factors

Product images:



Determination of the antibody titer To determine the titer of the antibody, an ELISA was performed using a serial dilution of the antibody against human CBFb. 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 1:8, 800.



ChIP assays were performed using SKNO-1 cells, the antibody against CBFb and optimized primer pairs for qPCR. Sheared chromatin from 1.25 million cells and 4 ul of antibody were used per ChIP experiment. QPCR was performed using primers specific for the FUT7, OGG1, NFE2, and SPI1 genes. Image shows the relative occupancy, calculated as the ratio + control/background for which the MYOG gene was used.

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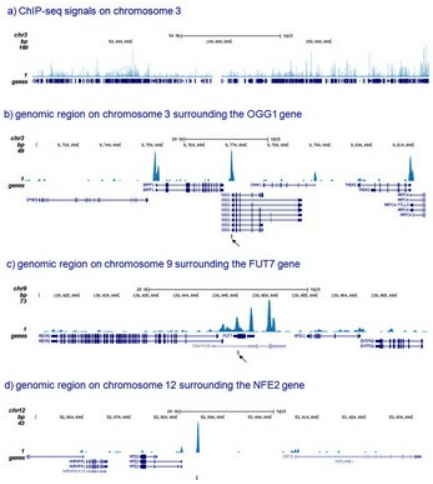

ChIP was performed as described above. The IP'd DNA from 6 ChIP's was pooled and analysed with an Illumina Genome Analyzer. The 32 bp tags were aligned to the human reference genome (hg18) using the ELAND algorithm. Image shows the results of the complete chromosome 3 and three genomic regions region surrounding the OGG1, FUT7 and NFE2 genes, respectively. The position of the PCR amplicon is indicated with an arrow.

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