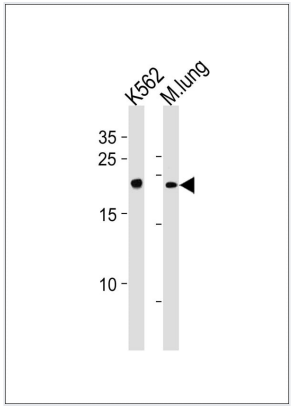
CBFB Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

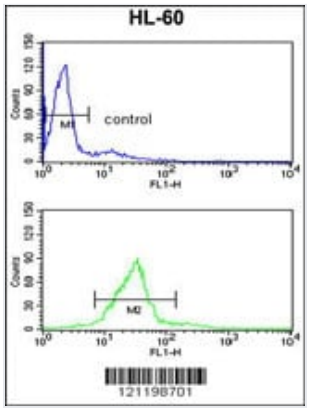
Product Name	CBFB, Polyclonal Antibody
Full Product Name	CBFB, ID (Core-binding Factor Subunit beta, CBF-beta, Polyomavirus Enhancer-binding Protein 2 beta Subunit, PEBP2-beta, PEA2-beta, SL3-3 Enhancer Factor 1 Subunit beta, SL3/AKV Core-binding Factor beta Subunit) (Biotin)
Product Gene Name	anti-CBFB antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human CBFB.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	21,508 Da
Chromosome Location	Chromosome: 16; NC_000016.9 (67063050..67134961). Location: 16q22.1
OMIM	121360
3D Structure	ModBase 3D Structure for Q13951
Immunogen	Synthetic peptide selected from the center region of human CBFB (KLH).
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-CBFB antibody	Antibodies; Binding Proteins
Applications Tested/Suitable for anti-CBFB antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-CBFB antibody	WB: 1:100-1:500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-CBFB antibody	MBS6470279 is an antibody targeting CBFB. Also known as CBFB, ID (Core-binding Factor Subunit beta, CBF-beta, Polyomavirus Enhancer-binding Protein 2 beta Subunit, PEBP2-beta, PEA2-beta, SL3-3 Enhancer Factor 1 Subunit beta, SL3/AKV Core-binding Factor beta Subunit) (Biotin). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-CBFB antibody	1. Andersen, C.L., et.al., Br. J. Cancer 100(3), 511-523 (2009).
Other Notes	Small volumes of anti-CBFB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



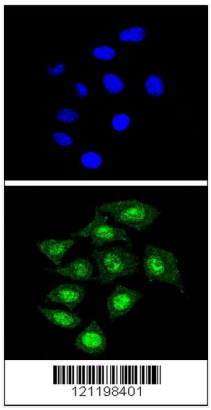
Western Blot (WB) of anti-CBFB antibody
CBFB Antibody (Center) western blot analysis in K562 cell line and mouse lung tissue lysates (35ug/lane).This demonstrates the CBFB antibody detected the CBFB protein (arrow).



Immunohistochemistry (IHC) of anti-CBFB antibody
Formalin-fixed and paraffin-embedded human brain tissue reacted with CBFB Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-CBFB antibody
CBFB Antibody (Center) flow cytometry analysis of HL-60 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Immunofluorescence (IF) of anti-CBFB antibody
Confocal immunofluorescent analysis of CBFB Antibody (Center) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CBFB. It may not necessarily be applicable to this product.

NCBI GI #	13124873
NCBI GeneID	865
NCBI Accession #	NP_001746.1
UniProt Primary Accession #	Q13951
UniProt Secondary Accession #	Q13124; Q9HCT2; A8K347
UniProt Related Accession #	Q13951
GenBank Nucleotide #	NM_001755.2
NCBI Official Full Name	core-binding factor subunit beta isoform 2
NCBI Official Synonym Full Names	core-binding factor, beta subunit
NCBI Official Symbol	CBFB
NCBI Official Synonym Symbols	PEBP2B
UniProt Protein Name	Core-binding factor subunit beta

UniProt Synonym Protein Names	Polyomavirus enhancer-binding protein 2 beta subunit; PEA2-beta; PEBP2-beta; SL3-3 enhancer factor 1 subunit beta; SL3/AKV core-binding factor beta subunit
Protein Family	Core-binding factor
UniProt Gene Name	CBFB
UniProt Synonym Gene Names	CBF-beta; PEA2-beta; PEBP2-beta
UniProt Entry Name	PEBB_HUMAN
NCBI Protein Information	core-binding factor subunit beta; CBF-beta; PEA2-beta; PEBP2-beta; SL3-3 enhancer factor 1 beta subunit; SL3-3 enhancer factor 1 subunit beta; SL3/AKV core-binding factor beta subunit; polyomavirus enhancer-binding protein 2 beta subunit; polyomavirus enh
NCBI Summary for CBFB	The protein encoded by this gene is the beta subunit of a heterodimeric core-binding transcription factor belonging to the PEBP2/CBF transcription factor family which master-regulates a host of genes specific to hematopoiesis (e.g., RUNX1) and osteogenesis (e.g., RUNX2). The beta subunit is a non-DNA binding regulatory subunit; it allosterically enhances DNA binding by alpha subunit as the complex binds to the core site of various enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers and GM-CSF promoters. Alternative splicing generates two mRNA variants, each encoding a distinct carboxyl terminus. In some cases, a pericentric inversion of chromosome 16 [inv(16)(p13q22)] produces a chimeric transcript consisting of the N terminus of core-binding factor beta in a fusion with the C-terminal portion of the smooth muscle myosin heavy chain 11. This chromosomal rearrangement is associated with acute myeloid leukemia of the M4Eo subtype. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for CBFB	CBFB: CBF binds to the core site, 5'-PYGPYGGT-3', of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, LCK, IL3 and GM- CSF promoters. CBFB enhances DNA binding by RUNX1. A chromosomal aberration involving CBFB is associated with acute myeloid leukemia of M4EO subtype. Pericentric inversion inv(16)(p13;q22). The inversion produces a fusion protein that consists of the 165 N-terminal residues of CBF-beta (PEPB2) with the tail region of MYH11. Belongs to the CBF-beta family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Oncoprotein; DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: membrane; nucleus Molecular Function: protein binding; DNA binding; transcription coactivator activity; transcription factor activity Biological Process: osteoblast differentiation; transcription from RNA polymerase II promoter; lymphocyte differentiation; cell maturation; myeloid cell differentiation; positive regulation of transcription from RNA polymerase II promoter
Research Articles on CBFB	**1.** These separation-of-function mutants demonstrate that HIV-1 Vif and the RUNX transcription factors interact with cellular CBFbeta on genetically distinct surfaces.
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