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CBFB Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6905c

Product Information

Application	IHC-P, FC, IF, WB, E
Primary Accession	Q13951
Other Accession	Q08024
Reactivity	Human, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	21508
Antigen Region	61-90

Additional Information

Gene ID	865
Other Names	Core-binding factor subunit beta, CBF-beta, 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, CBFB
Target/Specificity	This CBFB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 61-90 amino acids from the Central region of human CBFB.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CBFB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CBFB
Function	Forms the heterodimeric complex core-binding factor (CBF) with RUNX

family proteins (RUNX1, RUNX2, and RUNX3). RUNX members modulate the transcription of their target genes through recognizing the core consensus binding sequence 5'-TGTGGT-3', or very rarely, 5'- TGCGGT-3', within their regulatory regions via their runt domain, while CBFB is a non-DNA-binding regulatory subunit that allosterically enhances the sequence-specific DNA-binding capacity of RUNX. The heterodimers bind to the core site of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T- cell receptor enhancers, LCK, IL3 and GM-CSF promoters. CBF complexes repress ZBTB7B transcription factor during cytotoxic (CD8+) T cell development. They bind to RUNX-binding sequence within the ZBTB7B locus acting as transcriptional silencer and allowing for cytotoxic T cell differentiation.

Cellular Location Nucleus {ECO:0000250|UniProtKB:Q08024}.

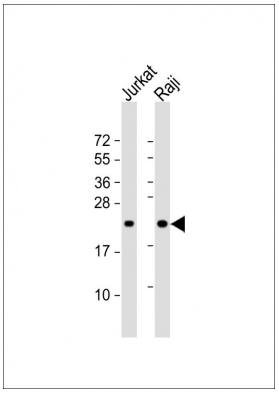
Background

CBFB 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.

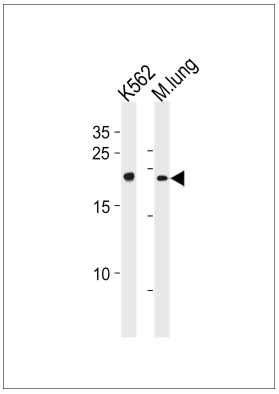
References

Andersen,C.L., et.al., Br. J. Cancer 100 (3), 511-523 (2009)

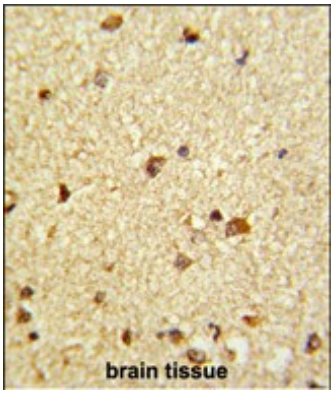
Images



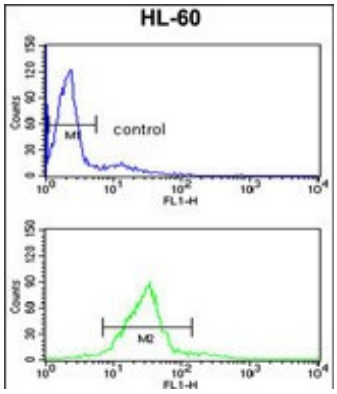
All lanes : Anti-CBFB Antibody (Center) at 1:1000 dilution Lane 1: Jurkat whole cell lysate Lane 2: Raji whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



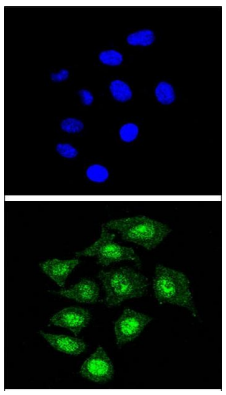
CBFB Antibody (Center) (Cat. #AP6905c) western blot analysis in K562 cell line and mouse lung tissue lysates (35ug/lane).This demonstrates the CBFB antibody detected the CBFB protein (arrow).



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.



CBFB Antibody (Center) (Cat. #AP6905c) 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.



Confocal immunofluorescent analysis of CBFB Antibody (Center) (Cat. #AP6905c) with 293 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.