

Product Name: KD-Validated Core-Binding Factor Subunit Beta Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA01545

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 21.5kDa

Antigen Information

Gene Name	CBFB CBFB; Core-Binding Factor Subunit Beta; PEBP2B; SL3/AKV Core-Binding Factor Beta Subunit; SL3-3 Enhancer Factor 1 Subunit Beta; Core-Binding Factor Beta Subunit; PEBP2-
Alternative Names	Beta; PEA2-Beta; CBF-Beta; Polyomavirus Enhancer Binding Protein 2, Beta Subunit; Polyomavirus Enhancer-Binding Protein 2 Beta Subunit; SL3-3 Enhancer Factor 1 Beta Subunit; Core-Binding Factor, Beta Subunit; CLCD2
Gene ID	865.0
SwissProt ID	Q13951
Immunogen	A synthesized peptide derived from human CBFb

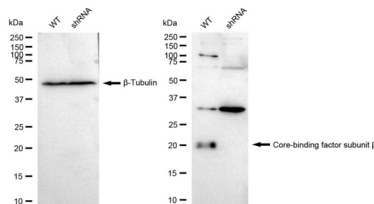
Background

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]

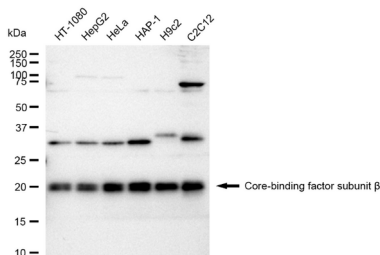
Research Area

Epigenetics and Nuclear Signaling

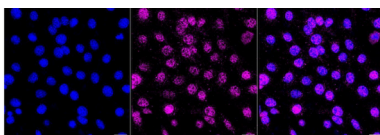
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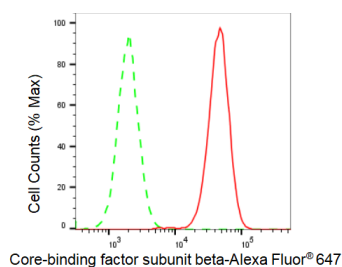
Western blotting analysis using Core-binding factor subunit beta antibody (KVA01545). Core-binding factor subunit beta expression in wild type (WT) and Core-binding factor subunit beta shRNA knockdown (KD) HeLa cells with 30 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with Core-binding factor subunit beta antibody (KVA01545, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Core-binding factor subunit beta antibody (KVA01545). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Core-binding factor subunit beta antibody (KVA01545, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of C2C12 cells with Core-binding factor subunit beta antibody (KVA01545, 1:1,000). Nuclei were stained blue with DAPI; Core-binding factor subunit beta was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.



Flow cytometric analysis of Core-binding factor subunit beta expression in HAP-1 cells using Core-binding factor subunit beta antibody (KVA01545, 1:2,000). Green, isotype control; red, Core-binding factor subunit beta.

