Human/Mouse CBFB Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7349

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse CBFB in Western blots and recombinant human CBFB in direct ELISAs. In direct ELISAs, approximately 5% cross-reactivity with recombinant human RUNX-1, -2, and -3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CBFB Pro2-Glu165 Accession # Q13951
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

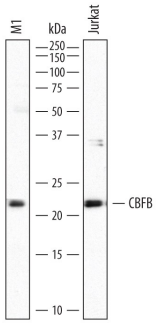
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

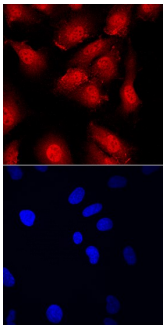
DATA

Western Blot



Detection of Human and Mouse CBFB by Western Blot. Western blot shows lysates of M1 mouse myeloid leukemia cell line and Jurkat human acute T cell leukemia cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human CBFB Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7349) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CBFB at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



CBFB in HUVEC Human Cells. CBFB was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Sheep Anti-Human/Mouse CBFB Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7349) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CBFB (Core binding Factor beta; also PEA2β and PEBP2β) is a widely-expressed 21-24 kDa member of the CBFB family of proteins. It forms dimeric transcriptional complexes with multiple molecules, including CBFB, RUNX1 and RUNX2. Although it does not bind DNA, it potentiates the binding of its partners to DNA. Human CBFB is 182 amino acids (aa) in length. It contains multiple α-helices and β-strands. CBFB has at least two splice variants. One is approximately 23 kDa in size and possesses a 22 aa substitution for aa 166-182. A second is 16 kDa in size and contains a 22 aa substitution for aa 134-182. And a third shows a potential deletion of aa 56-94 coupled to the above 22 substitution for aa 166-182. CBFB is known to form a 68-70 kDa fusion protein with smooth muscle myosin heavy chain in AML. The CBFB contribution to the N-terminus of this fusion protein usually involves aa 1-165. Over aa 1-165, human CBFB shares 98% aa sequence identity with mouse CBFB.

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