

# RUNX1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21105a

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">Q01196</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB51406
<b>Calculated MW</b>	48737

## Additional Information

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<b>Gene ID</b>	861
<b>Other Names</b>	Runt-related transcription factor 1, Acute myeloid leukemia 1 protein, Core-binding factor subunit alpha-2, CBF-alpha-2, Oncogene AML-1, Polyomavirus enhancer-binding protein 2 alpha B subunit, PEA2-alpha B, PEBP2-alpha B, SL3-3 enhancer factor 1 alpha B subunit, SL3/AKV core-binding factor alpha B subunit, RUNX1, AML1, CBFA2
<b>Target/Specificity</b>	This RUNX1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 421-455 amino acids from the C-terminal region of human RUNX1.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	RUNX1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	RUNX1
<b>Synonyms</b>	AML1, CBFA2

<b>Function</b>	Forms the heterodimeric complex core-binding factor (CBF) with CBFB. 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 (Probable). Essential for the development of normal hematopoiesis (PubMed: <a href="#">17431401</a> ). Acts synergistically with ELF4 to transactivate the IL-3 promoter and with ELF2 to transactivate the BLK promoter (PubMed: <a href="#">10207087</a> , PubMed: <a href="#">14970218</a> ). Inhibits KAT6B-dependent transcriptional activation (By similarity). Involved in lineage commitment of immature T cell precursors. 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. CBF complexes binding to the transcriptional silencer is essential for recruitment of nuclear protein complexes that catalyze epigenetic modifications to establish epigenetic ZBTB7B silencing (By similarity). Controls the anergy and suppressive function of regulatory T-cells (Treg) by associating with FOXP3. Activates the expression of IL2 and IFNG and down-regulates the expression of TNFRSF18, IL2RA and CTLA4, in conventional T-cells (PubMed: <a href="#">17377532</a> ). Positively regulates the expression of RORC in T-helper 17 cells (By similarity).
<b>Cellular Location</b>	Nucleus.
<b>Tissue Location</b>	Expressed in all tissues examined except brain and heart. Highest levels in thymus, bone marrow and peripheral blood

## Background

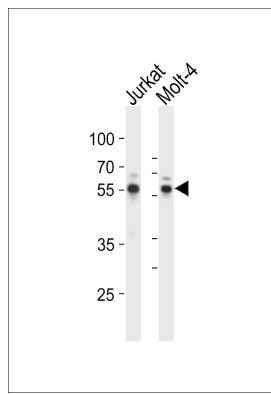
CBF binds to the core site, 5'-PYGPYGGT-3', of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, LCK, IL-3 and GM-CSF promoters. The alpha subunit binds DNA and appears to have a role in the development of normal hematopoiesis. Isoform AML-1L interferes with the transactivation activity of RUNX1. Acts synergistically with ELF4 to transactivate the IL-3 promoter and with ELF2 to transactivate the mouse BLK promoter. Inhibits KAT6B- dependent transcriptional activation.

## References

Ahn M.-Y.,et al.Submitted (SEP-1994) to the EMBL/GenBank/DBJ databases.  
Miyoshi H.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:10431-10434(1991).  
Sacchi N.,et al.Genes Chromosomes Cancer 11:226-236(1994).  
Nucifora G.,et al.Blood 81:2728-2734(1993).  
Levanon D.,et al.Genomics 23:425-432(1994).

## Images

Western blot analysis of lysates from Jurkat, Molt-4 cell line (from left to right), using RUNX1 Antibody (C-term)(Cat. #AP21105a). AP21105a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



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