

AML1 / RUNX1 Antibody (clone 5A1)
Mouse Monoclonal Antibody
Catalog # ALS15714**Specification**

AML1 / RUNX1 Antibody (clone 5A1) - Product Information

Application	IHC, IF
Primary Accession	Q01196
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	49kDa KDa

AML1 / RUNX1 Antibody (clone 5A1) - Additional Information**Gene ID** 861**Other Names**

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

Target/Specificity

Human AML1 / RUNX1

Reconstitution & Storage

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions

AML1 / RUNX1 Antibody (clone 5A1) is for research use only and not for use in diagnostic or therapeutic procedures.

AML1 / RUNX1 Antibody (clone 5A1) - Protein Information**Name** RUNX1**Synonyms** AML1, CBFA2**Function**

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

[17431401](http://www.uniprot.org/citations/17431401)). Acts synergistically with ELF4 to transactivate the IL-3 promoter and with ELF2 to transactivate the BLK promoter (PubMed: [10207087](http://www.uniprot.org/citations/10207087), PubMed: [14970218](http://www.uniprot.org/citations/14970218)). 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: [17377532](http://www.uniprot.org/citations/17377532)). Positively regulates the expression of RORC in T-helper 17 cells (By similarity).

Cellular Location

Nucleus.

Tissue Location

Expressed in all tissues examined except brain and heart. Highest levels in thymus, bone marrow and peripheral blood

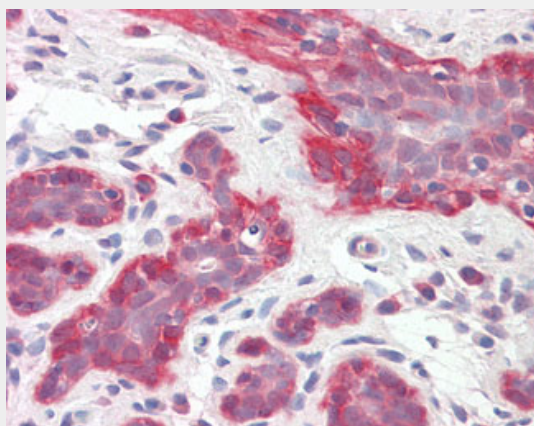
Volume

50 µl

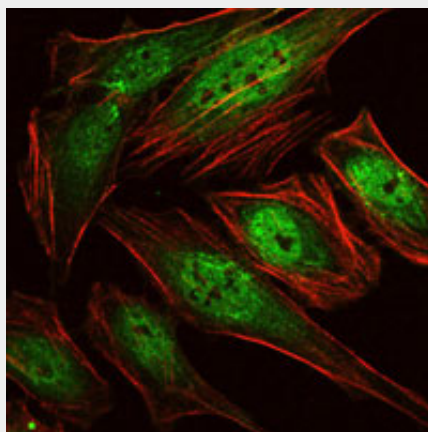
AML1 / RUNX1 Antibody (clone 5A1) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AML1 / RUNX1 Antibody (clone 5A1) - Images

Anti-AML1 / RUNX1 antibody IHC staining of human breast.



Immunofluorescence of HeLa cells using RUNX1 mouse monoclonal antibody (green).

AML1 / RUNX1 Antibody (clone 5A1) - 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.

AML1 / RUNX1 Antibody (clone 5A1) - References

Ahn M.-Y.,et al.Submitted (SEP-1994) to the EMBL/GenBank/DDBJ 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).