

RUNX1
Purified Mouse Monoclonal Antibody
Catalog # AO2556a

Specification

RUNX1 - Product Information

Application	E, WB
Primary Accession	O01196
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	48.7kDa KDa

Immunogen

Purified recombinant fragment of human RUNX1 (AA: 237-337) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

RUNX1 - Additional Information

Gene ID 861

Other Names

AML1; CBFA2; EVI-1; AMLCR1; PEBP2aB; CBF2alpha; AML1-EVI-1; PEBP2alpha

Dilution

E~~ 1/10000
WB~~ 1/500 - 1/2000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RUNX1 is for research use only and not for use in diagnostic or therapeutic procedures.

RUNX1 - Protein Information

Name RUNX1

Synonyms AML1, CBFA2

Function

Forms the heterodimeric complex core-binding factor (CBF) with CBFβ. 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 CBFβ 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:17431401). Acts synergistically with ELF4 to transactivate the IL-3 promoter and with ELF2 to transactivate the BLK promoter (PubMed:10207087, PubMed: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). 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

RUNX1 - 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](#)

RUNX1 - Images



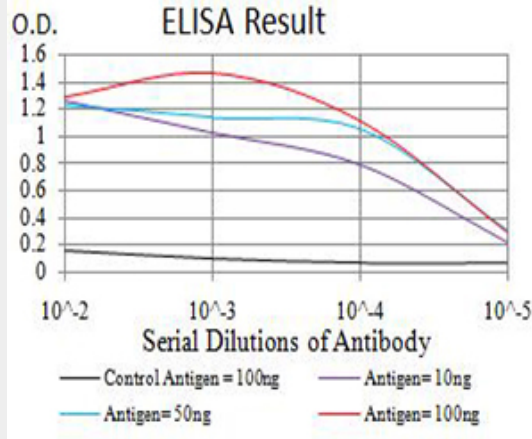


Figure 1: Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)

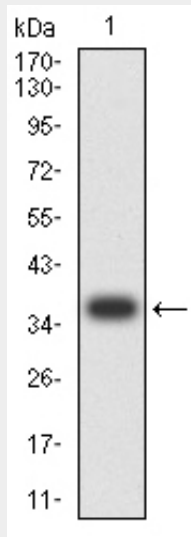


Figure 2: Western blot analysis using RUNX1 mAb against human RUNX1 (AA: 237-337) recombinant protein. (Expected MW is 36.9 kDa)

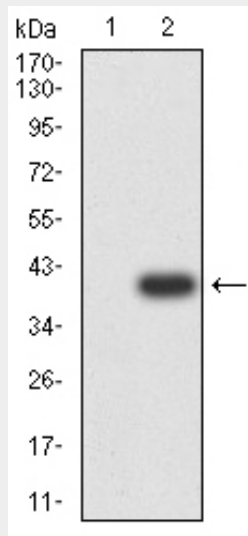


Figure 3: Western blot analysis using RUNX1 mAb against HEK293 (1) and RUNX1 (AA: 237-337)-hlgGfc transfected HEK293 (2) cell lysate.

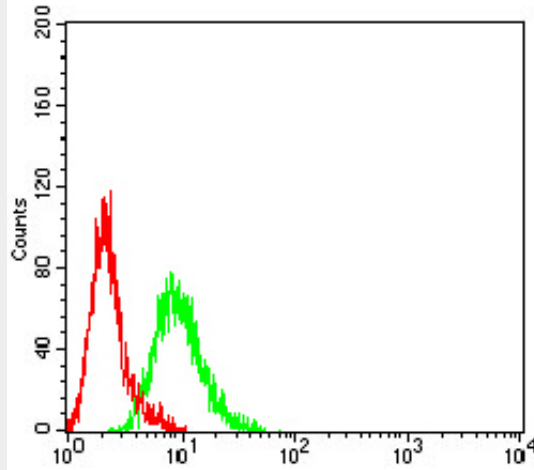


Figure 4:Flow cytometric analysis of K562 cells using RUNX1 mouse mAb (green) and negative control (red).

RUNX1 - References

- 1.Blood. 2015 Feb 5;125(6):930-40.
- 2.Blood. 2015 Jun 4;125(23):3570-9.