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RUNX1

Purified Mouse Monoclonal Antibody
Catalog # AO2556a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q01196
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6C12A5
Isotype	Mouse IgG1
Calculated MW	48737
Immunogen	Purified recombinant fragment of human RUNX1 (AA: 237-337) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	861
Other Names	AML1; CBFA2; EVI-1; AMLCR1; PEBP2aB; CBF2alpha; AML1-EVI-1; PEBP2alpha
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
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.

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: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

References

1.Blood. 2015 Feb 5;125(6):930-40.2.Blood. 2015 Jun 4;125(23):3570-9.

Images

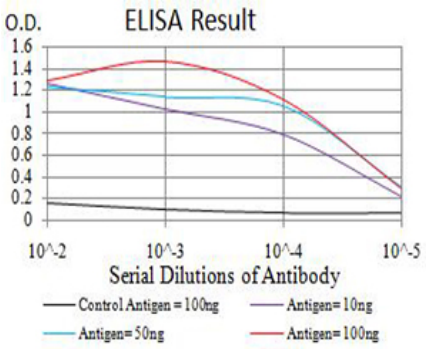


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

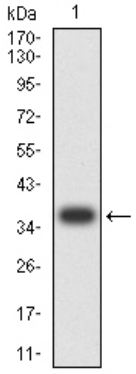
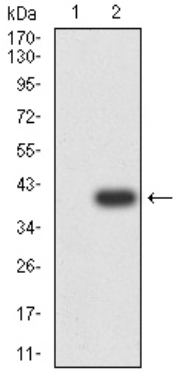


Figure 2:Western blot analysis using RUNX1 mAb against human RUNX1 (AA: 237-337) recombinant protein. (Expected MW is 36.9 kDa)

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



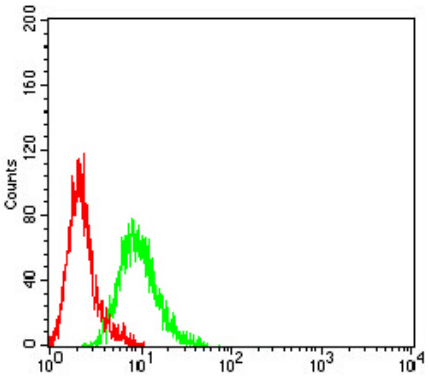


Figure 4:Flow cytometric analysis of K562 cells using RUNX1 mouse mAb (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.