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Anti-RUNX1/AML1 Picoband Antibody

Catalog # ABO11854

Product Information

Application	WB, IHC-P
Primary Accession	Q01196
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Runt-related transcription factor 1(RUNX1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	48737
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Nucleus.
Tissue Specificity	Expressed in all tissues examined except brain and heart. Highest levels in thymus, bone marrow and peripheral blood.
Source	Eukaryota
Protein Name	Runt-related transcription factor 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human RUNX1(200-233aa ELEQLRRTAMRVSPHHPAPTPNPRASLNHSTAFN), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Contains 1 Runt domain.

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

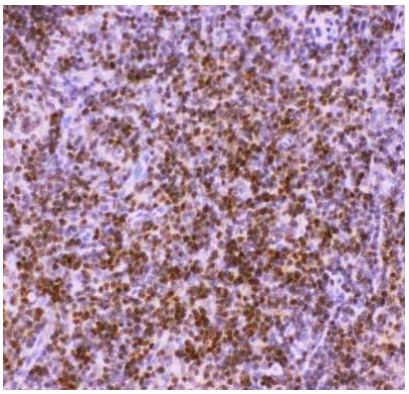
Background

Runt-related transcription factor 1 (RUNX1), also known as AML1 or CBFA2, is a protein that in humans is encoded by the RUNX1 gene. It belongs to the Runt-related transcription factor (RUNX) family of genes which are also called core binding factor- □± (CBF □±). RUNX1 is mapped to 21q22.12. RUNX1 is a transcription factor that regulates the differentiation of hematopoietic stem cells into mature blood cells. RUNX proteins form a heterodimeric complex with CBF □? which confers increased DNA binding and stability to the complex. Chromosomal translocations involving the RUNX1 gene are associated with several types of leukemia including M2 AML. Mutations in RUNX1 are implicated in cases of breast cancer.

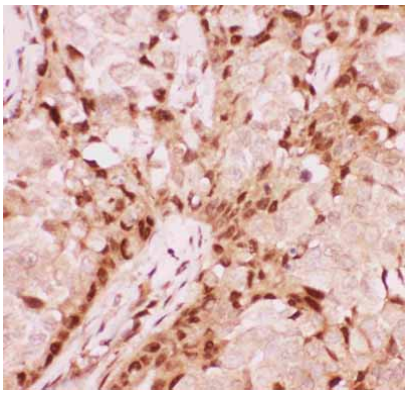
Images



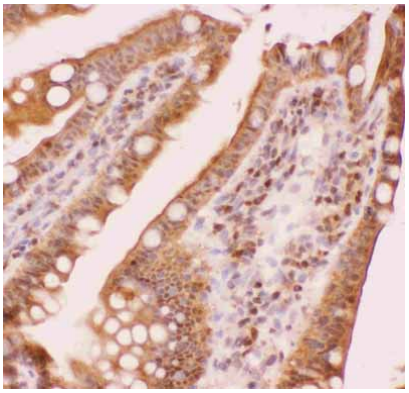
Anti-RUNX1/AML1 Picoband antibody , ABO11854-1.jpgAll lanes: Anti RUNX1 (ABO11854) at 0.5ug/mlWB: Recombinant Human RUNX1 Protein 0.5ngPredicted bind size: 50KDObserved bind size: 50KD



Anti-RUNX1/AML1 Picoband antibody , ABO11854-2.JPGIHC(P): Rat Thymus Tissue



Anti-RUNX1/AML1 Picoband antibody , ABO11854-3.JPGIHC(P): Human Mammary Cancer Tissue



Anti-RUNX1/AML1 Picoband antibody , ABO11854-4.JPGIHC(P): Mouse Intestine Tissue

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