10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-RUNX1/AML1 Picoband Antibody

Catalog # ABO11854

Specification

Anti-RUNX1/AML1 Picoband Antibody - 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.

Anti-RUNX1/AML1 Picoband Antibody - 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 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/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.

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.

Anti-RUNX1/AML1 Picoband Antibody - 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

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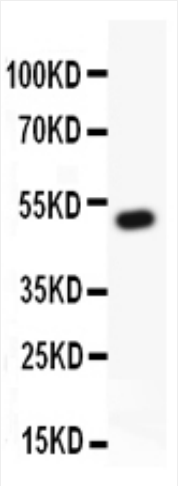
Anti-RUNX1/AML1 Picoband Antibody - Protocols

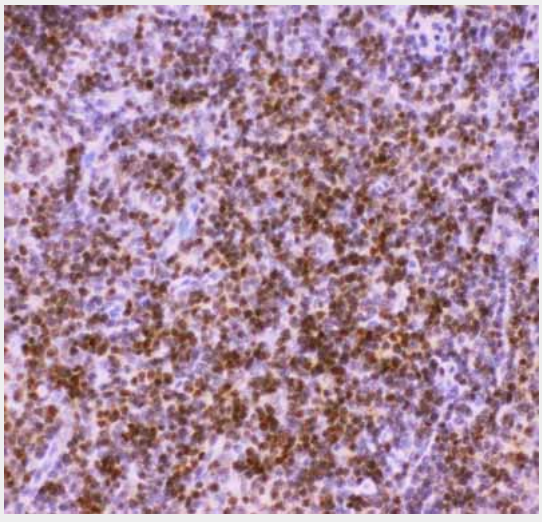
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-RUNX1/AML1 Picoband Antibody - 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

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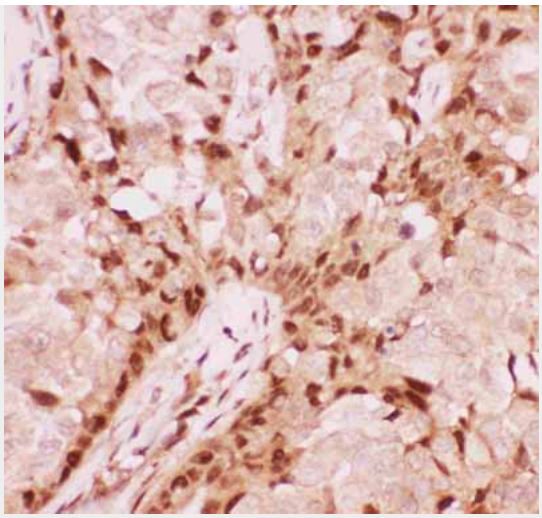
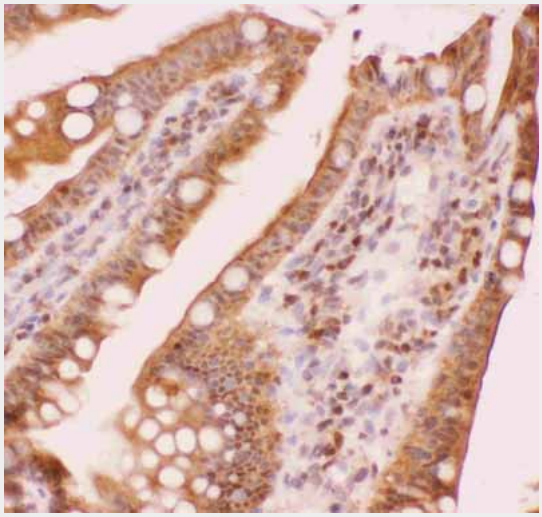


Anti-RUNX1/AML1 Picoband antibody , ABO11854-3.JPGIHC(P): Human Mammary Cancer Tissue



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

Anti-RUNX1/AML1 Picoband Antibody - 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-Î± (CBFÎ±). 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 CBFÎ² 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.