

Anti-RUNX1 Antibody

Rabbit polyclonal antibody to RUNX1 Catalog # AP59980

Specification

Anti-RUNX1 Antibody - Product Information

Application WB, IF
Primary Accession Q01196
Other Accession Q03347

Reactivity Human, Mouse, Rat, Pig, Chicken

Host Rabbit
Clonality Polyclonal
Calculated MW 48737

Anti-RUNX1 Antibody - Additional Information

Gene ID 861

Other Names

AML1; CBFA2; 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

Target/Specificity

Recognizes endogenous levels of RUNX1 protein.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500) IF~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C.Stable for 12 months from date of receipt

Anti-RUNX1 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:<a href="http://www.uniprot.org/citations/10207087"

target="_blank">10207087, PubMed:14970218, 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 LocationNucleus.

Tissue Location

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

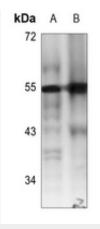
Anti-RUNX1 Antibody - Protocols

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

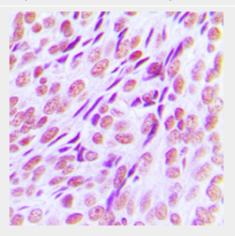
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-RUNX1 Antibody - Images





Western blot analysis of RUNX1 expression in MCF7 (A), Jurkat (B) whole cell lysates.



Immunohistochemical analysis of RUNX1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of RUNX1 staining in THP1 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Anti-RUNX1 Antibody - Background





KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RUNX1. The exact sequence is proprietary.