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RUNX1 Antibody (S276)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2805a

Specification

RUNX1 Antibody (S276) - Product Information

Application	**IF, WB, IHC-P, FC,E**
Primary Accession	Q01196
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**48737**
Antigen Region	**227-255**

RUNX1 Antibody (S276) - 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

Target/Specificity
This RUNX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 227-255 amino acids from human RUNX1.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
RUNX1 Antibody (S276) is for research use only and not for use in diagnostic or therapeutic procedures.

RUNX1 Antibody (S276) - 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

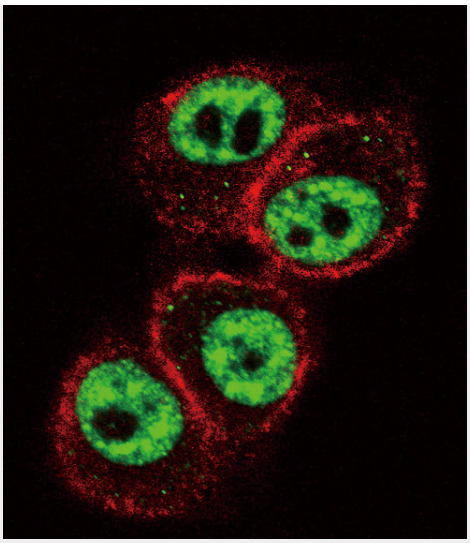
RUNX1 Antibody (S276) - Protocols

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

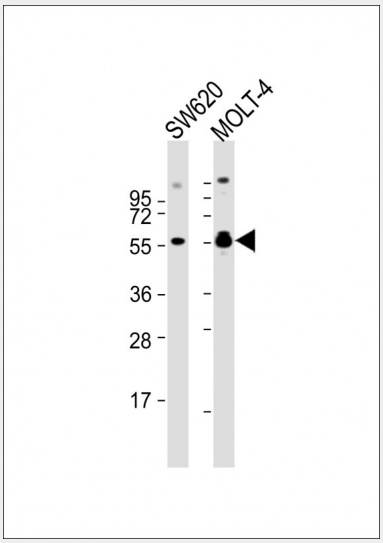
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RUNX1 Antibody (S276) - Images

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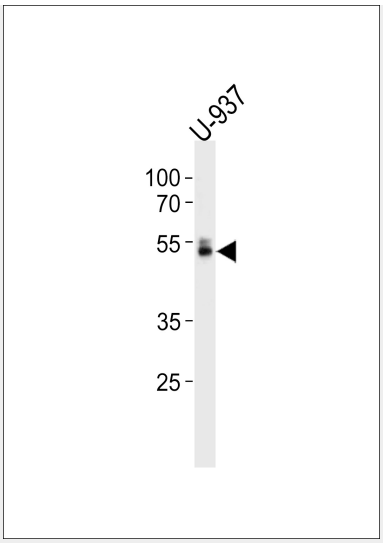


Confocal immunofluorescent analysis of RUNX1 Antibody (S276)(Cat#AP2805a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).

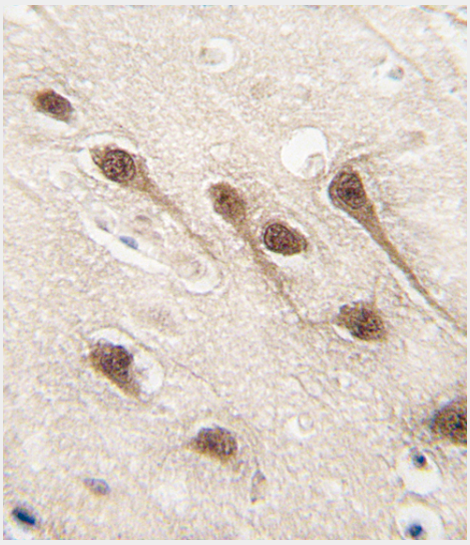


All lanes : Anti-RUNX1 Antibody (S276) at 1:2000 dilution Lane 1: SW620 whole cell lysate Lane 2: MOLT-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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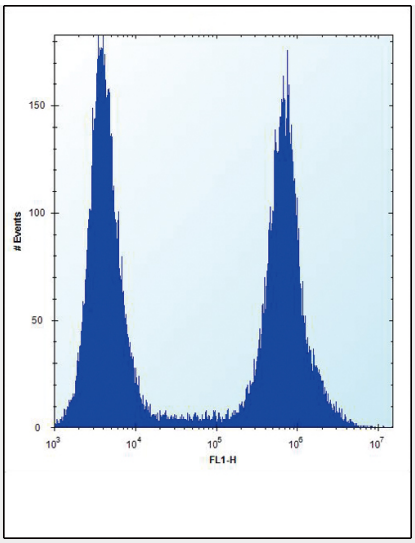


RUNX1 Antibody (S276) (Cat. #AP2805a) western blot analysis in U-937 cell line lysates (35ug/lane).This demonstrates the RUNX1 antibody detected the RUNX1 protein (arrow).



Formalin-fixed and paraffin-embedded human brain tissue reacted with RUNX1 Antibody (S276) (Cat.#AP2805a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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RUNX1 Antibody (S276) (Cat. #AP2805a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

RUNX1 Antibody (S276) - Background

Core binding factor (CBF) is a heterodimeric transcription factor that binds to the core element of many enhancers and promoters. The RUNX1 protein represents the alpha subunit of CBF and is thought to be involved in the development of normal hematopoiesis.

RUNX1 Antibody (S276) - References

Moosavi,S.A., Cancer Genet. Cytogenet. 189 (1), 24-28 (2009)
Zen,P.R., Cancer Genet. Cytogenet. 188 (2), 112-117 (2009)