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RUNX2 Antibody (S533)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7735d

Specification

RUNX2 Antibody (S533) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q13950
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**445-474**

RUNX2 Antibody (S533) - Additional Information

Gene ID 860

Other Names
Runt-related transcription factor 2, Acute myeloid leukemia 3 protein, Core-binding factor subunit alpha-1, CBF-alpha-1, Oncogene AML-3, Osteoblast-specific transcription factor 2, OSF-2, Polyomavirus enhancer-binding protein 2 alpha A subunit, PEA2-alpha A, PEBP2-alpha A, SL3-3 enhancer factor 1 alpha A subunit, SL3/AKV core-binding factor alpha A subunit, RUNX2, AML3, CBFA1, OSF2, PEBP2A

Target/Specificity
This RUNX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 445-474 amino acids surrounding S465 of human RUNX2.

Dilution
WB~~1:2000
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
RUNX2 Antibody (S533) is for research use only and not for use in diagnostic or therapeutic procedures.

RUNX2 Antibody (S533) - Protein Information

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Name RUNX2

Synonyms AML3, CBFA1, OSF2, PEBP2A

Function Transcription factor involved in osteoblastic differentiation and skeletal morphogenesis (PubMed:28505335, PubMed:28738062, PubMed:28703881). Essential for the maturation of osteoblasts and both intramembranous and endochondral ossification. CBF binds to the core site, 5'-PYGPYGGT-3', of a number of enhancers and promoters, including murine leukemia virus, polyomavirus enhancer, T-cell receptor enhancers, osteocalcin, osteopontin, bone sialoprotein, alpha 1(I) collagen, LCK, IL-3 and GM-CSF promoters. In osteoblasts, supports transcription activation: synergizes with SPEN/MINT to enhance FGFR2- mediated activation of the osteocalcin FGF-responsive element (OCFRE) (By similarity). Inhibits KAT6B-dependent transcriptional activation.

Cellular Location
Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q08775}

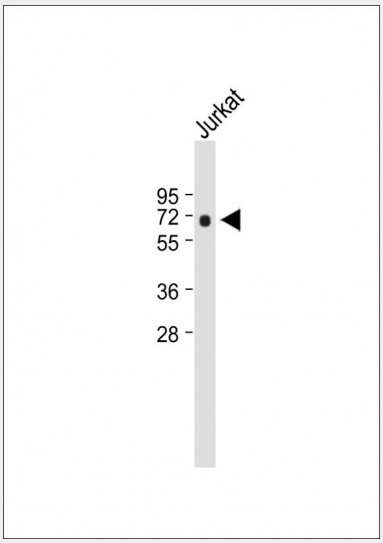
Tissue Location
Specifically expressed in osteoblasts.

RUNX2 Antibody (S533) - 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

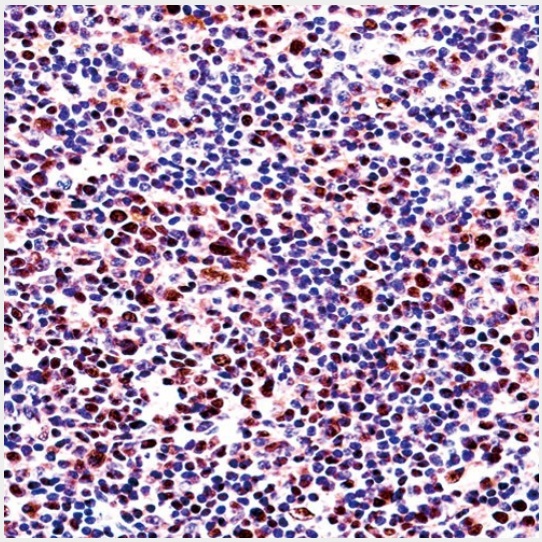
RUNX2 Antibody (S533) - Images



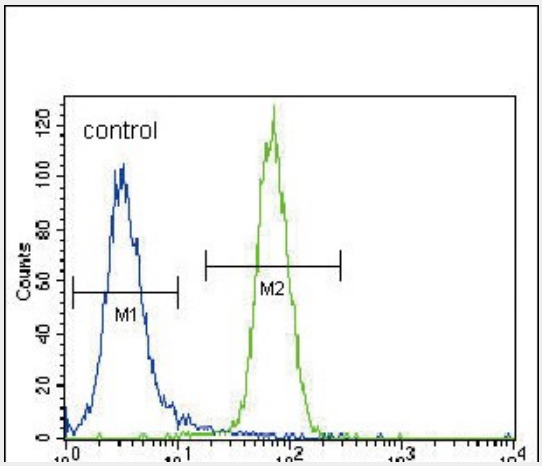
Anti-RUNX2(S465) Antibody at 1:2000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.

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Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



RUNX2 Antibody (S465) (AP7735d)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of RUNX2 Antibody (S465) for immunohistochemistry. Clinical relevance has not been evaluated.



RUNX2 Antibody (S465) (Cat. #AP7735d) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

RUNX2 Antibody (S533) - Background

Runx2 is a member of the RUNX family of transcription factors. It is a nuclear protein with an Runt DNA-binding domain. This protein is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene expression. It can bind DNA both as a monomer or, with more affinity, as a subunit of a heterodimeric complex. Mutations in the Runx2 gene have been associated with the bone development disorder cleidocranial dysplasia (CCD).

RUNX2 Antibody (S533) - References

Rich,J.T., Biochem. Biophys. Res. Commun. 372 (1), 230-235 (2008) Ermakov,S., Ann. Hum. Genet. 72 (PT 4), 510-518 (2008) Endo,T., J. Clin. Endocrinol. Metab. 93 (6), 2409-2412 (2008)

RUNX2 Antibody (S533) - Citations

- PELP1 promotes the expression of RUNX2 via the ERK pathway during the osteogenic differentiation of human periodontal ligament stem cells
- LXR/RXR pathway signaling associated with triple-negative breast cancer in African American women.