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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	O13950
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	445-474

RUNX2 Antibody (S533) - Additional Information

Gene ID 860

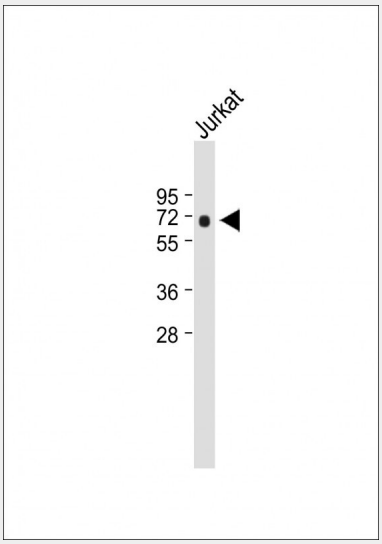
Other Names
Runt-related transcription factor 2, Acute myeloid leukemia 3 protein, Core-binding factor subunit alpha-1, CBF-alpha-1, Oncogene AML-3, Osteoblast-specific transcription factor 2, OSF-2, Polyomavirus enhancer-binding protein 2 alpha A subunit, PEA2-alpha A, PEBP2-alpha A, SL3-3 enhancer 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.

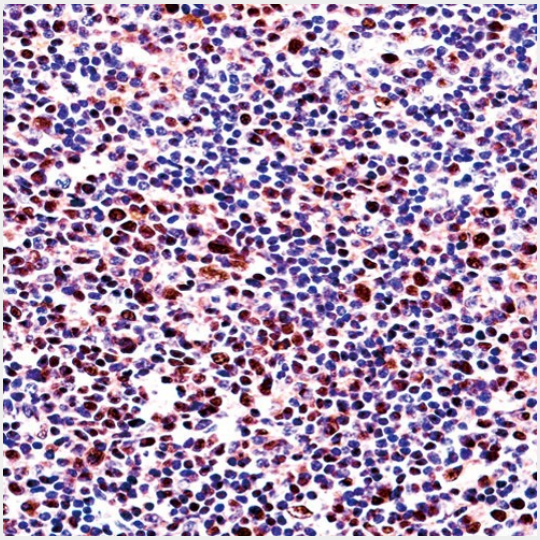
Dilution
WB~~1:2000
IHC-P~~1:10~50
FC~~1:10~50

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



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. 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

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

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

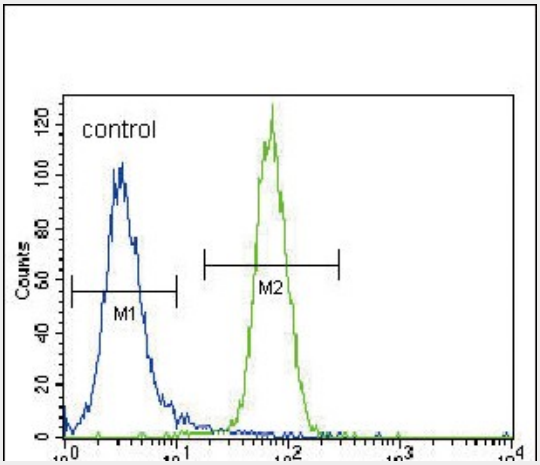
Tissue Location
Specifically expressed in osteoblasts.

RUNX2 Antibody (S533) - Protocols

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

- Western Blot

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)

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

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.