

### **RUNX2 Antibody (N-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7735a

### **Specification**

### **RUNX2 Antibody (N-term) - Product Information**

Application
Primary Accession
Reactivity
Host
Clonality
Isotype
Antigen Region

IHC-P,E
013950
Human
Rabbit
Polyclonal
Rabbit Ig
1-30

RUNX2 Antibody (N-term) - 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  $1\sim30$  amino acids from the N-terminal region of human RUNX2.

### **Dilution**

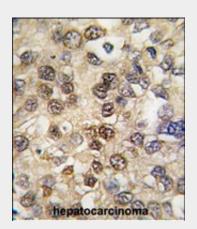
IHC-P~~1:10~50

### **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



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with Runx2 Antibody (N-term) (Cat.#AP7735a), 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.

### RUNX2 Antibody (N-term) - 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 (N-term) - 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)



in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

RUNX2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**RUNX2 Antibody (N-term) - Protein Information** 

Name RUNX2

Synonyms AML3, CBFA1, OSF2, PEBP2A

#### **Function**

Transcription factor involved in osteoblastic differentiation and skeletal morphogenesis (PubMed:<a href="http://www.uniprot.org/c itations/28505335" target="\_blank">28505335</a>, PubMed:<a href="http://www.uniprot.org/ci tations/28738062" target=" blank">28738062</a>, PubMed:<a href="http://www.uniprot.org/ci tations/28703881" target=" blank">28703881</a>). 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.

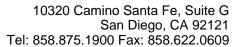
## **Cellular Location** Nucleus

**Tissue Location**Specifically expressed in osteoblasts.

# **RUNX2 Antibody (N-term) - Protocols**

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

• Western Blot





• Blocking Peptides

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

# **RUNX2 Antibody (N-term) - Citations**

• CCAAT/enhancer-binding protein β regulates the repression of type II collagen expression during the differentiation from proliferative to hypertrophic chondrocytes.