

## Anti-RUNX2 Antibody Picoband®

Catalog Number: PA1224

### About RUNX2

Core binding factor A1 (CBFA1/RUNX2) is a runt-like transcription factor essential for osteoblast differentiation. This protein is a member of the RUNX family of transcription factors and has a Runt DNA-binding domain. It is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene expression. D'Souza et al. (1999) indicate a non-redundant role for Cbfa1 in tooth development that may be distinct from that in bone formation. In odontogenesis, Cbfa1 is not involved in the early signaling networks regulating tooth initiation and early morphogenesis but regulates key epithelial-mesenchymal interactions that control advancing morphogenesis and histodifferentiation of the epithelial enamel organ.

### Overview

Product Name	Anti-RUNX2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RUNX2 Antibody catalog # PA1224. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q13950

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human RUNX2, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse

## Anti-RUNX2 Antibody Picoband® (PA1224) Images

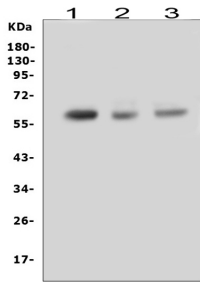


Figure 1. Western blot analysis of RUNX2 using anti-RUNX2 antibody (PA1224).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human U-87MG whole cell lysate,

Lane 2: rat liver tissue lysate,

Lane 3: mouse liver tissue lysate.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RUNX2 antigen affinity purified polyclonal antibody (Catalog # PA1224) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for RUNX2 at approximately 62KD. The expected band size for RUNX2 is at 58KD.

## 12 Publications Citing This Product

1. PubMed ID: 10.1371/journal.pone.0150263, The Transcription Factor Hand1 Is Involved In Runx2-Ihh-Regulated Endochondral Ossification
2. PubMed ID: 26918743, The transcription factor Hand1 is involved in Runx2-Ihh-regulated endochondral ossification
3. PubMed ID: 29213288, Yao S, Zhao W, Ou Q, Liang L, Lin X, Wang Y. Stem Cells Int. 2017;2017:3028647. doi: 10.1155/2017/3028647. Epub 2017 Oct 29. MicroRNA-214 Suppresses Osteogenic Differentiation of Human Periodontal Ligament Stem Cells by Targeting ATF4

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