# RUNX2 (PT0524R) PT® Rabbit mAb

CatalogNo: YM8347 Recombinant

## Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,

Applications
- WB,IHC,IF,IP,ELISA

MW
- 57kD (Calculated)

57kD (Observed)

Isotype
- IgG,Kappa

## Recommended Dilution Ratios

**IHC 1:1000-1:5000**
**WB 1:2000-1:10000**
**IF 1:200-1:1000**
**ELISA 1:5000-1:20000**
**IP 1:50-1:200**

## Storage

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|---|---|
| **Storage*** | -15°C to -25°C/1 year(Do not lower than -25°C) |

## Basic Information

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|---|---|
| **Clonality** | Monoclonal |
| **Clone Number** | PT0524R |

## Immunogen Information

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|---|---|
| **Specificity** | Endogenous |

## Target Information

**Gene name** RUNX2

**Protein Name** Runt-related transcription factor 2

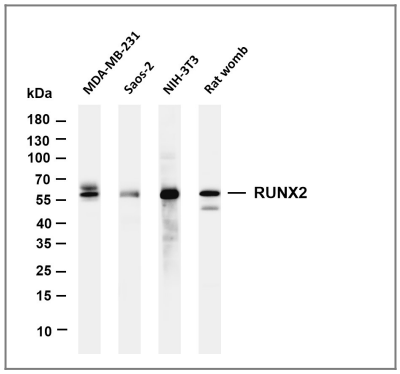
| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 860; | Q13950; |
| Mouse | 12393; | Q08775; |
| Rat | | Q9Z2J9; |

**Cellular Localization** Nucleus

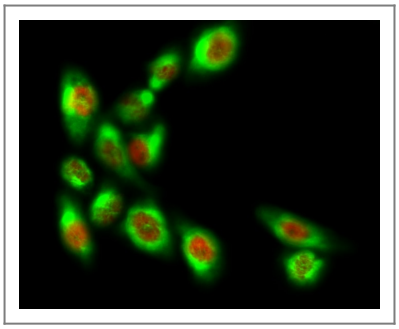
**Tissue specificity** Specifically expressed in osteoblasts.

**Function** Disease:Defects in RUNX2 are the cause of cleidocranial dysplasia (CCD) [MIM:119600]. CCD is an autosomal dominant skeletal disorder with high penetrance and variable expressivity. It is due to defective endochondral and intramembranous bone formation. Typical features include hypoplasia/aplasia of clavicles, patent fontanelles, wormian bones (additional cranial plates caused by abnormal ossification of the calvaria), supernumerary teeth, short stature, and other skeletal changes. In some cases defects in RUNX2 are exclusively associated with dental anomalies.,Domain:A proline/serine/threonine rich region at the C-terminus is necessary for transcriptional activation of target genes and contains the phosphorylation sites.,Function:Transcription factor involved in osteoblastic differentiation and skeletal morphogenesis. 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 (By similarity). Inhibits MYST4-dependent transcriptional activation.,PTM:Phosphorylated; probably by MAP kinases (MAPK) (By similarity). Isoform 3 is phosphorylated on Ser-340.,similarity:Contains 1 Runt domain.,subunit:Heterodimer of an alpha and a beta subunit. Interacts with HIVEP3 (By similarity). The alpha subunit binds DNA as a monomer and through the Runt domain. DNA-binding is increased by heterodimerization. Interacts with G22P1 (Ku70) and XRCC5 (Ku80). Interacts with MYST3 and MYST4.,tissue specificity:Specifically expressed in osteoblasts.,

## Validation Data




Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-RUNX2 (PT0524R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: MDA-MB-231 Lane 2: Saos-2 Lane 3: NIH-3T3 Lane 4: Rat womb Predicted band size: 57kDa Observed band size: 57kDa



Immunofluorescence analysis of Hela cell. 1,RUNX2 Antibody(red) was diluted at 1:200(4° overnight). NSE Monoclonal Antibody(13E2)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).

## Contact information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