

# RUNX2 monoclonal antibody (M04), clone 4D5

## APO-000860-M04

### Specification

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**Product Description:** Mouse monoclonal antibody raised against a partial recombinant RUNX2.

**Immunogen:** RUNX2 (NP\_004339, 251 a.a. ~ 351 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Immunogen Sequence (without GST):** NPRPSLNSAPSPFNPQQSQITDPRQAQSSPPWSYDQSYPSYLSQMTSPS  
IHSTTPLSSTRGTGLPAITDVPRRISDDDTATSDFCLWPSTLSKKSQAGA  
\*

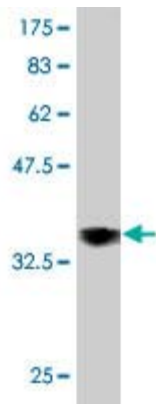
**Cross Reactivity:** Human, Rat

**Isotype:** IgG2a Kappa

**Storage Buffer:** In 1x PBS, pH 7.2

**Storage Instruction:** Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Quality Control Testing:** Antibody Reactive Against Recombinant Protein.

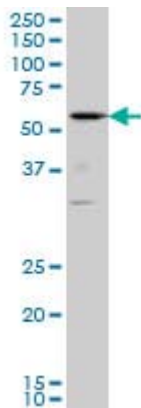


Western Blot detection against Immunogen (37.11 KDa) .

## Applications

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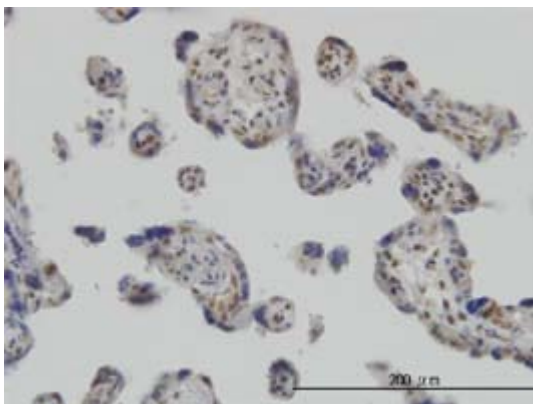
### Western Blot (Cell lysate)



RUNX2 monoclonal antibody (M04), clone 4D5 Western Blot analysis of RUNX2 expression in PC-12 ( Cat # L012V1 ).

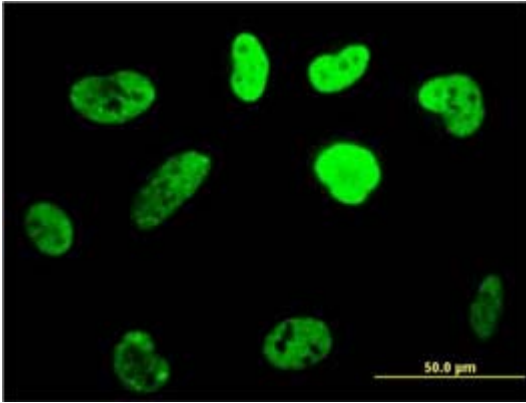
### Western Blot (Recombinant protein)

### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)



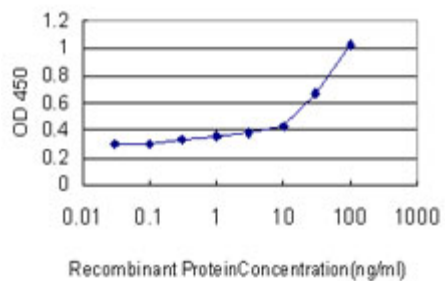
Immunoperoxidase of monoclonal antibody to RUNX2 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]

### Immunofluorescence



Immunofluorescence of monoclonal antibody to RUNX2 on HeLa cell. [antibody concentration 10 ug/ml]

### Sandwich ELISA (Recombinant protein)



Detection limit for recombinant GST tagged RUNX2 is approximately 10ng/ml as a capture antibody.

### ELISA

### Gene Information

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Entrez GeneID: [860](#)

GeneBank Accession#: [NM\\_004348](#)

Protein Accession#: [NP\\_004339](#)

**Gene Name:** RUNX2

**Gene Alias:** AML3, CBFA1, CCD, CCD1, MGC120022, MGC120023, OSF2, PEA2aA, PEBP2A1, PEBP2A2, PEBP2aA, PEBP2aA1

**Gene Description:** runt-related transcription factor 2

**Omim ID:** [119600](#), [600211](#)

**Gene Ontology:** [Hyperlink](#)

**Gene Summary:** This gene is a member of the RUNX family of transcription factors and encodes 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. The protein can bind DNA both as a monomer or, with more affinity, as a subunit of a heterodimeric complex. Mutations in this gene have been associated with the bone development disorder cleidocranial dysplasia (CCD). Transcript variants that encode different protein isoforms result from the use of alternate promoters as well as alternate splicing.

**Other Designations:** CBF-alpha 1, OTTHUMP00000016533, SL3-3 enhancer factor 1 alpha A subunit, SL3/AKV core-binding factor alpha A subunit, acute myeloid leukemia 3 protein, core-binding factor, runt domain, alpha subunit 1, osteoblast-specific transcription factor 2, polyoma