

# RUNX2 Antibody (monoclonal) (M06)

Mouse monoclonal antibody raised against a partial recombinant RUNX2.

Catalog # AT3745a

## Product Information

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|--------------------------|---------------------------|
| <b>Application</b>       | WB, IHC, IF, E            |
| <b>Primary Accession</b> | <a href="#">Q13950</a>    |
| <b>Other Accession</b>   | <a href="#">NM_004348</a> |
| <b>Reactivity</b>        | Human                     |
| <b>Host</b>              | mouse                     |
| <b>Clonality</b>         | monoclonal                |
| <b>Isotype</b>           | IgG2a Kappa               |
| <b>Clone Names</b>       | 3F5                       |
| <b>Calculated MW</b>     | 56648                     |

## Additional Information

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|---------------------------|--|
| <b>Gene ID</b>            | 860  |
| <b>Other Names</b>        | 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 |
| <b>Target/Specificity</b> | RUNX2 (NP_004339, 251 a.a. ~ 350 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.   |
| <b>Dilution</b>           | WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A  |
| <b>Format</b>             | Clear, colorless solution in phosphate buffered saline, pH 7.2 .   |
| <b>Storage</b>            | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.   |
| <b>Precautions</b>        | RUNX2 Antibody (monoclonal) (M06) is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Background

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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.

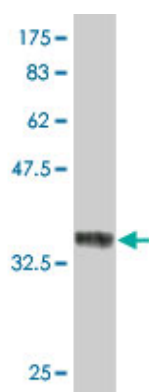
## References

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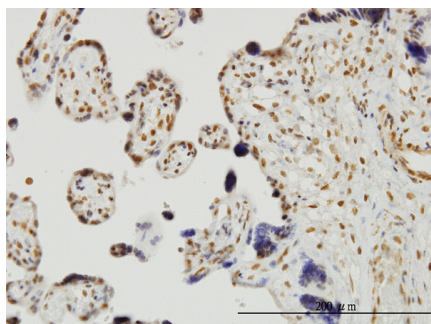
1. Transcription factor Runx2 is a regulator of epithelial-mesenchymal transition and invasion in thyroid carcinomas. Niu DF, Kondo T, Nakazawa T, Oishi N, Kawasaki T, Mochizuki K, Yamane T, Katoh R. Lab Invest. 2012 May 28. doi: 10.1038/labinvest.2012.84. 2. Aggregatibacter actinomycetemcomitans lipopolysaccharide regulates bone sialoprotein gene transcription. Li X, Zhou L, Takai H, Sasaki Y, Mezawa M, Li Z, Wang Z, Yang L, Wang S, Matsumura H, Kaneko T, Yoshimura A, Ogata Y. J Cell Biochem. 2012 Apr 10. doi: 10.1002/jcb.24157. 3. cAMP and fibroblast growth factor 2 regulate bone sialoprotein gene expression in human prostate cancer cells. Li Z, Sasaki Y, Mezawa M, Wang S, Li X, Yang L, Wang Z, Zhou L, Araki S, Matsumura H, Takai H, Ogata Y. Gene. 2010 Oct 19. [Epub ahead of print]. 4. Effects of Inorganic Polyphosphate on Bone Sialoprotein Gene Expression. Wang Z, Li X, Li Z, Yang L, Sasaki Y, Wang S, Zhou L, Araki S, Mezawa M, Takai H, Ogata Y. Gene. 2010 Jan 6. [Epub ahead of print]

## Images

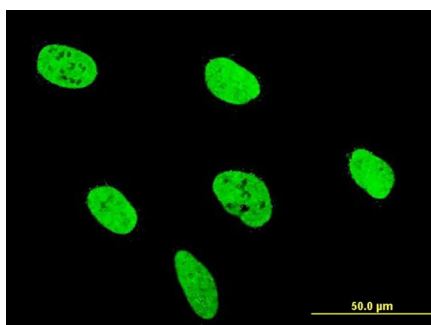
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Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 kDa) .

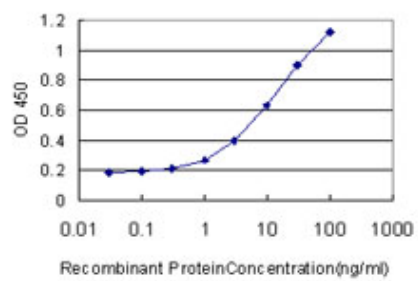


Immunoperoxidase of monoclonal antibody to RUNX2 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]



Immunofluorescence of monoclonal antibody to RUNX2 on U-2 OS cell . [antibody concentration 10 ug/ml]

Detection limit for recombinant GST tagged RUNX2 is approximately 0.1 ng/ml as a capture antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.