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RUNX2 Antibody (monoclonal) (M06)

Mouse monoclonal antibody raised against a partial recombinant RUNX2.
Catalog # AT3745a

Product Information

Application	WB, IHC, IF, E
Primary Accession	Q13950
Other Accession	NM_004348
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	3F5
Calculated MW	56648

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

Background

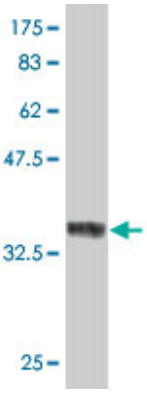
This gene is a member of the RUNX family of transcription factors and encodes a nuclear protein with an Runt DNA-binding domain. This protein is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene 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.

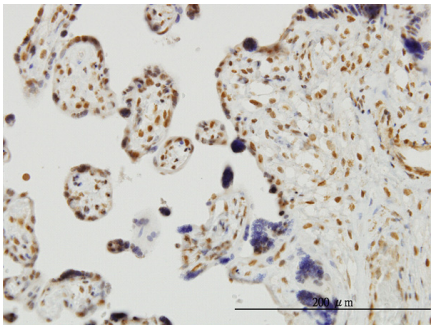
References

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]

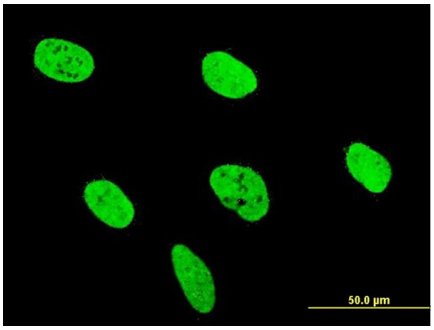
Images



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

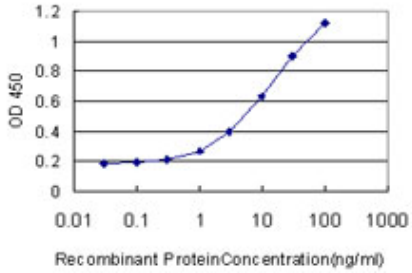


Immunoperoxidase of monoclonal antibody to RUNX2 on formalin-fixed paraffin-embedded human placenta. [antibody concentration 3 ug/ml]



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 0.1ng/ml as a capture antibody.



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