10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RUNX2 Antibody (monoclonal) (M04)

Mouse monoclonal antibody raised against a partial recombinant RUNX2.
Catalog # AT3743a

Product Information

Application	WB, IHC, IF, E
Primary Accession	Q13950
Other Accession	NM_004348
Reactivity	Human, Rat
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4D5
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) (M04) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

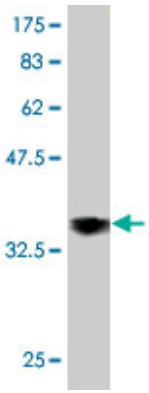
This gene is a member of the RUNX family of transcription factors and encodes a nuclear protein with an Runt DNA-binding domain. This protein is essential for osteoblastic differentiation and skeletal morphogenesis and acts as a scaffold for nucleic acids and regulatory factors involved in skeletal gene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

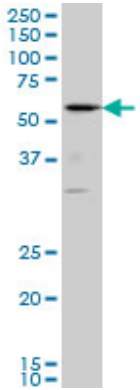
References

RUNX2 Polymorphisms Associated with OPLL and OLF in the Han Population. Liu Y, et al. Clin Orthop Relat Res, 2010 Aug 19. PMID 20721706.Deletions of the RUNX2 gene are present in about 10% of individuals with cleidocranial dysplasia. Ott CE, et al. Hum Mutat, 2010 Aug. PMID 20648631.Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.Frequent attenuation of the WWOX tumor suppressor in osteosarcoma is associated with increased tumorigenicity and aberrant RUNX2 expression. Kurek KC, et al. Cancer Res, 2010 Jul 1. PMID 20530675.Expression analysis of genes associated with human osteosarcoma tumors shows correlation of RUNX2 overexpression with poor response to chemotherapy. Sadikovic B, et al. BMC Cancer, 2010 May 13. PMID 20465837.

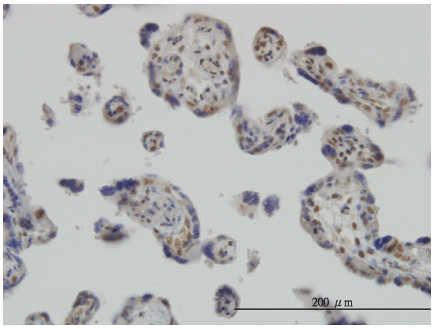
Images



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

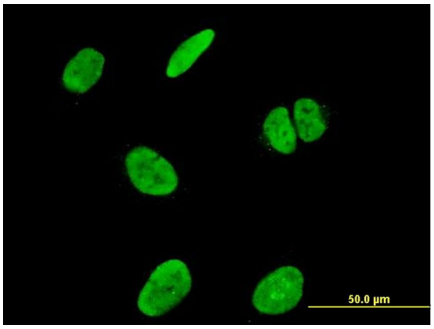


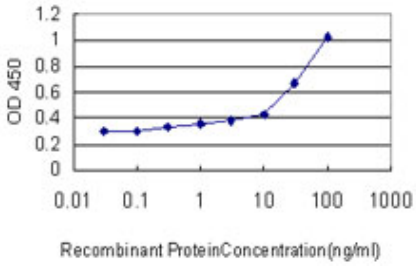
RUNX2 monoclonal antibody (M04), clone 4D5 Western Blot analysis of RUNX2 expression in PC-12 ((Cat # AT3743a)



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 10ng/ml as a capture antibody.

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