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HOXC4 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a partial recombinant HOXC4.
Catalog # AT2422a

Product Information

Application	WB, IF, E
Primary Accession	P09017
Other Accession	NM_153633
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	2D6
Calculated MW	29811

Additional Information

Gene ID	3221
Other Names	Homeobox protein Hox-C4, Homeobox protein CP19, Homeobox protein Hox-3E, HOXC4, HOX3E
Target/Specificity	HOXC4 (NP_705897, 160 a.a. ~ 264 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 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	HOXC4 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

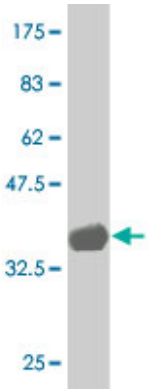
Background

This gene belongs to the homeobox family of genes. The homeobox genes encode a highly conserved family of transcription factors that play an important role in morphogenesis in all multicellular organisms. Mammals possess four similar homeobox gene clusters, HOXA, HOXB, HOXC and HOXD, which are located on different chromosomes and consist of 9 to 11 genes arranged in tandem. This gene, HOXC4, is one of several homeobox HOXC genes located in a cluster on chromosome 12. Three genes, HOXC5, HOXC4 and HOXC6, share a 5' non-coding exon. Transcripts may include the shared exon spliced to the gene-specific exons, or they may include only the gene-specific exons. Two alternatively spliced variants that encode the same protein have been described for HOXC4. Transcript variant one includes the shared exon, and transcript variant two includes only gene-specific exons.

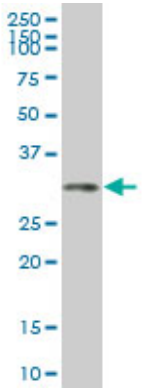
References

HoxC4 binds to the promoter of the cytidine deaminase AID gene to induce AID expression, class-switch DNA recombination and somatic hypermutation. Park SR, et al. Nat Immunol, 2009 May. PMID 19363484.The high-mobility-group domain of Sox proteins interacts with DNA-binding domains of many transcription factors. Wissm?ller S, et al. Nucleic Acids Res, 2006. PMID 16582099.Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Kimura K, et al. Genome Res, 2006 Jan. PMID 16344560.Analysis of single nucleotide polymorphisms and haplotypes in HOXC gene cluster within susceptible region 12q13 of simple congenital heart disease. Gong LG, et al. Zhonghua Yi Xue Yi Chuan Xue Za Zhi, 2005 Oct. PMID 16215934.A new recurrent inversion, inv(7)(p15q34), leads to transcriptional activation of HOXA10 and HOXA11 in a subset of T-cell acute lymphoblastic leukemias. Speleman F, et al. Leukemia, 2005 Mar. PMID 15674412.

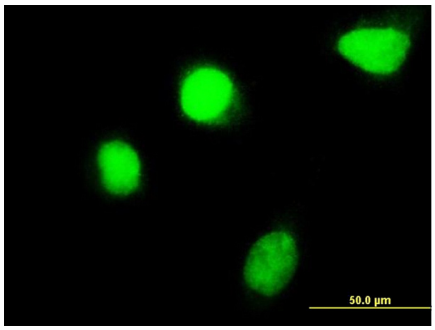
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.29 KDa) .

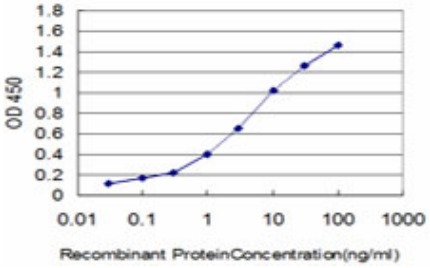


HOXC4 monoclonal antibody (M02), clone 2D6 Western Blot analysis of HOXC4 expression in K-562 ((Cat # AT2422a)



Immunofluorescence of monoclonal antibody to HOXC4 on HeLa cell. [antibody concentration 10 ug/ml]

Detection limit for recombinant GST tagged HOXC4 is approximately 0.03ng/ml as a capture antibody.



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