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MEOX1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14566C

Product Information

Application	WB, IHC-P, E
Primary Accession	P50221
Other Accession	NP_004518.1, NP_001035091.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34531
Calculated MW	27997
Antigen Region	136-165

Additional Information

Gene ID	4222
Other Names	Homeobox protein MOX-1, Mesenchyme homeobox 1, MEOX1, MOX1
Target/Specificity	This MEOX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 136-165 amino acids from the Central region of human MEOX1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MEOX1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MEOX1
Synonyms	MOX1
Function	Mesodermal transcription factor that plays a key role in somitogenesis and is specifically required for sclerotome development. Required for

maintenance of the sclerotome polarity and formation of the cranio-cervical joints (PubMed:23290072, PubMed:24073994). Binds specifically to the promoter of target genes and regulates their expression. Activates expression of NKX3-2 in the sclerotome. Activates expression of CDKN1A and CDKN2A in endothelial cells, acting as a regulator of vascular cell proliferation. While it activates CDKN1A in a DNA-dependent manner, it activates CDKN2A in a DNA-independent manner. Required for hematopoietic stem cell (HSCs) induction via its role in somitogenesis: specification of HSCs occurs via the deployment of a specific endothelial precursor population, which arises within a sub-compartment of the somite named endotome.

Cellular Location

Nucleus {ECO:0000250|UniProtKB:P32442}. Cytoplasm {ECO:0000250|UniProtKB:P32442}. Note=Localizes predominantly in the nucleus. {ECO:0000250|UniProtKB:P32442}

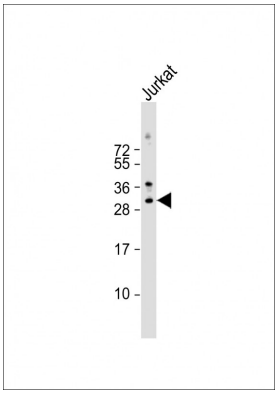
Background

This gene encodes a member of a subfamily of non-clustered, diverged, antennapedia-like homeobox-containing genes. The encoded protein may play a role in the molecular signaling network regulating somite development. Alternatively spliced transcript variants encoding different isoforms have been described.

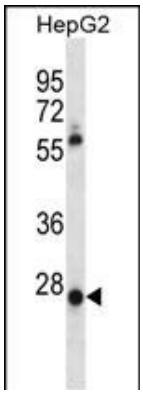
References

Vatanavicharn, N., et al. Am. J. Med. Genet. A 143A (19), 2292-2302 (2007) :
Wissmuller, S., et al. Nucleic Acids Res. 34(6):1735-1744(2006)
Gianakopoulos, P.J., et al. J. Biol. Chem. 280(22):21022-21028(2005)
Petropoulos, H., et al. J. Biol. Chem. 279(23):23874-23881(2004)
Stamataki, D., et al. FEBS Lett. 499(3):274-278(2001)

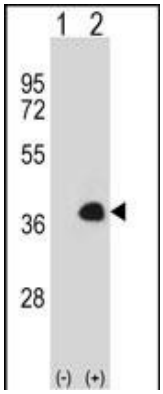
Images



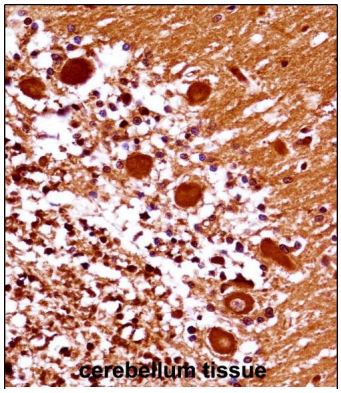
Anti-MEOX1 Antibody (Center) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 28 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



MEOX1 Antibody (Center) (Cat. #AP14566c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the MEOX1 antibody detected the MEOX1 protein (arrow).



Western blot analysis of MEOX1 (arrow) using rabbit polyclonal MEOX1 Antibody (Center) (Cat. #AP14566c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the MEOX1 gene.



MEOX1 Antibody (Center) (AP14566c)immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MEOX1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.