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MEOX2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18398C

Product Information

Application	IHC-P-Leica, IF, WB, E
Primary Accession	P50222
Other Accession	P39020, P32443, NP_005915.2
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB38441
Calculated MW	33594
Antigen Region	164-192

Additional Information

Gene ID	4223
Other Names	Homeobox protein MOX-2, Growth arrest-specific homeobox, Mesenchyme homeobox 2, MEOX2, GAX, MOX2
Target/Specificity	This MEOX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 164-192 amino acids from the Central region of human MEOX2.
Dilution	IHC-P-Leica~~1:500 IF~~1:10~50 WB~~1:1000 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	MEOX2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MEOX2 {ECO:0000303|PubMed:16335786, ECO:0000312|HGNC:HGNC:7014}
Function	Mesodermal transcription factor that plays a key role in somitogenesis and

somitogenesis and limb muscle differentiation (By similarity). Required during limb development for normal appendicular muscle formation and for the normal regulation of myogenic genes (By similarity). May have a regulatory role when quiescent vascular smooth muscle cells reenter the cell cycle (By similarity). Also acts as a negative regulator of angiogenesis (PubMed:17074759, PubMed:20516212, PubMed:22206000). Activates expression of CDKN1A and CDKN2A in endothelial cells, acting as a regulator of vascular cell proliferation (PubMed:17074759, PubMed:22206000). While it activates CDKN1A in a DNA- dependent manner, it activates CDKN2A in a DNA-independent manner (PubMed:22206000). Together with TCF15, regulates transcription in heart endothelial cells to regulate fatty acid transport across heart endothelial cells (By similarity).

Cellular Location Nucleus. Nucleus speckle

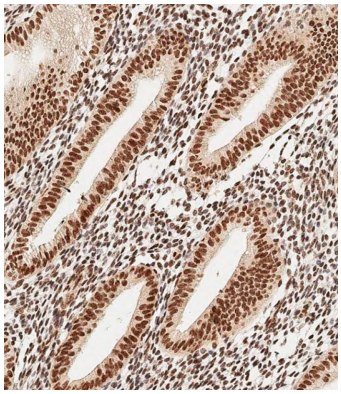
Background

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 regulation of vertebrate limb myogenesis. Mutations in the related mouse protein may be associated with craniofacial and/or skeletal abnormalities, in addition to neurovascular dysfunction observed in Alzheimer's disease.

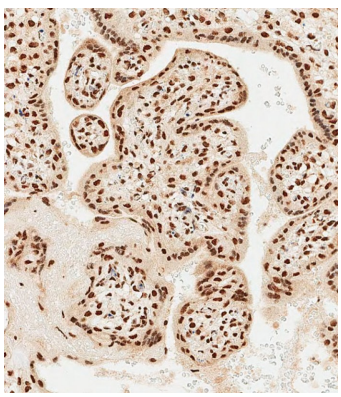
References

Rose, J. Phd, et al. Mol. Med. (2010) In press :
Ohshima, J., et al. Genes Chromosomes Cancer 48(12):1037-1050(2009)
Irelan, J.T., et al. PLoS ONE 4 (4), E5067 (2009) :
Chen, Y., et al. Blood 111(3):1217-1226(2008)
Valcourt, U., et al. Mol Oncol 1(1):55-71(2007)

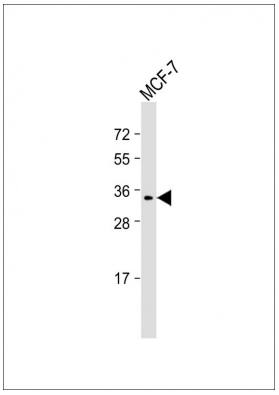
Images



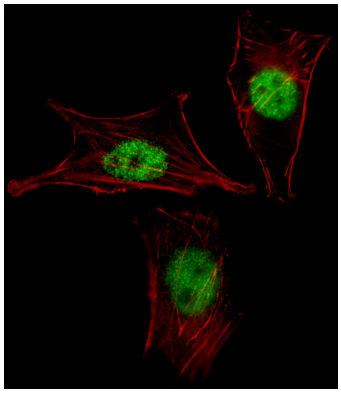
Immunohistochemical analysis of paraffin-embedded Human uterus tissue using AP18398c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of paraffin-embedded Human placenta tissue using AP18398c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Anti-MEOX2 Antibody (Center) at 1:2000 dilution + MCF-7 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 : 34 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent image of NIH-3T3 cell stained with MEOX2 Antibody (Center)(Cat#AP18398c).NIH-3T3 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MEOX2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).MEOX2 immunoreactivity is localized to Nucleus significantly.

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