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MEIS2 Antibody (Center D269)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5518c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O14770
Other Accession	P97367, NP_733775
Reactivity	Human, Rat, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20610
Calculated MW	51790
Antigen Region	254-280

Additional Information

Gene ID	4212
Other Names	Homeobox protein Meis2, Meis1-related protein 1, MEIS2, MRG1
Target/Specificity	This MEIS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 254-280 amino acids from the Central region of human MEIS2.
Dilution	WB~~1:2000 IHC-P~~1:100~500 FC~~1:10~50 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	MEIS2 Antibody (Center D269) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MEIS2
Synonyms	MRG1

Function	Involved in transcriptional regulation. Binds to HOX or PBX proteins to form dimers, or to a DNA-bound dimer of PBX and HOX proteins and thought to have a role in stabilization of the homeoprotein-DNA complex. Isoform 3 is required for the activity of a PDX1:PBX1b:MEIS2b complex in pancreatic acinar cells involved in the transcriptional activation of the ELA1 enhancer; the complex binds to the enhancer B element and cooperates with the transcription factor 1 complex (PTF1) bound to the enhancer A element; MEIS2 is not involved in complex DNA-binding. Probably in complex with PBX1, is involved in transcriptional regulation by KLF4. Isoform 3 and isoform 4 can bind to a EPHA8 promoter sequence containing the DNA motif 5'-CGGTCA-3'; in cooperation with a PBX protein (such as PBX2) is proposed to be involved in the transcriptional activation of EPHA8 in the developing midbrain. May be involved in regulation of myeloid differentiation. Can bind to the DNA sequence 5'-TGACAG-3'in the activator ACT sequence of the D(1A) dopamine receptor (DRD1) promoter and activate DRD1 transcription; isoform 5 cannot activate DRD1 transcription.
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P97367}
Tissue Location	Expressed in various tissues. Expressed at high level in the lymphoid organs of hematopoietic tissues. Also expressed in some regions of the brain, such as the putamen

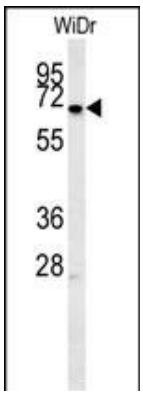
Background

MEIS2 is a homeobox protein belonging to the TALE ('three amino acid loop extension') family of homeodomain-containing proteins. TALE homeobox proteins are highly conserved transcription regulators, and several members have been shown to be essential contributors to developmental programs.

References

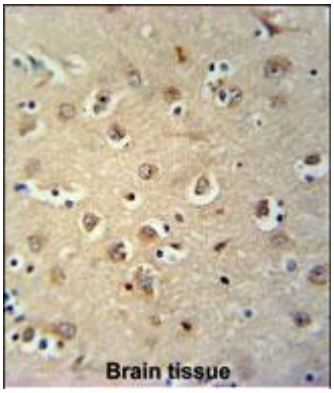
Adkins, D.E., et al. Mol. Psychiatry (2010)
Milech, N., et al. Leuk. Res. 34(3):358-363(2010)
Vasan, R.S., et al. JAMA 302(2):168-178(2009)
Steelman, S., et al. Genome Res. 7(2):142-156(1997)

Images

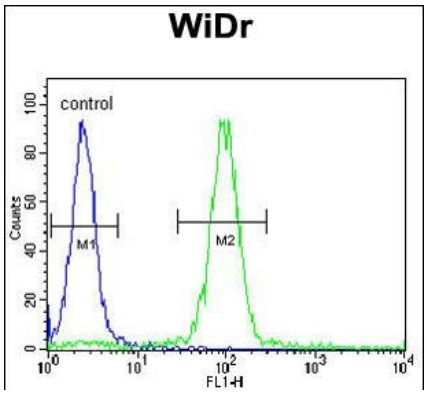


MEIS2 Antibody (Center D269) (Cat. #AP5518c) western blot analysis in WiDr cell line lysates (15ug/lane).This demonstrates the MEIS2 antibody detected the MEIS2 protein (arrow).

MEIS2 Antibody (Center D269) (Cat. #AP5518c) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and



DAB staining. This data demonstrates the use of the MEIS2 Antibody (Center D269) for immunohistochemistry. Clinical relevance has not been evaluated.



MEIS2 Antibody (Center D269) (Cat. #AP5518c) flow cytometric analysis of WiDr cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.