

Meis homeobox 3 Rabbit pAb

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Catalog # AP54661

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q99687
Reactivity	Rat
Predicted	Mouse, Dog, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41115
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Meis homeobox 3
Epitope Specificity	121-220/375
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Belongs to the TALE/MEIS homeobox family. Contains 1 homeobox DNA-binding domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Hox, Pbx and Meis families of transcription factors form heteromeric complexes and bind DNA through specific homeobox domains. Hox proteins are involved in regulating tissue patterning during development, and are also expressed in lineage- and stage-specific patterns during adult hematopoietic differentiation and in leukemias. The Hox proteins, which include paralog groups 1-10, have a low intrinsic binding affinity for DNA and are instead associated into cooperative DNA binding complexes with Pbx or the Pbx-related Meis proteins, which result in an enhanced Hox-DNA binding affinity and an increased selectivity for the binding site. Both Meis1 and Meis2 (also known as Meis-related gene 1 or Mrg1) are members of the TALE ("three amino acid loop extension") family of homeodomain-containing proteins. In addition to binding with Hox proteins, Meis1 also forms heterodimers with the ubiquitously expressed Pbx proteins, including Pbx1, Pbx2 and Pbx3, and these complexes contain distinct DNA-binding specificities. Like Hox and Pbx proteins, Meis1 is implicated in oncogenesis, as it is overexpressed as a result of adjacent retroviral insertion in BHX-2 myeloid leukemias. Two Meis-related proteins, Meis2 and Meis3 (also designated Mrg1 and Mrg2, respectively), possess largely similar sequence identity with Meis1 and are expressed in normal tissues and myeloid leukemias. In the pancreas, Meis2 preferentially associates with Pbx1, and together they associate with the pancreas-specific homeodomain factor, Pdx1, to repress Pdx1-induced transcriptional activation.

Additional Information

Gene ID	56917
Other Names	Homeobox protein Meis3, Meis1-related protein 2, MEIS3, MRG2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

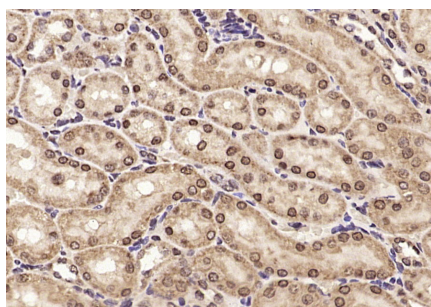
Protein Information

Name	MEIS3
Synonyms	MRG2
Function	Transcriptional regulator which directly modulates PDPK1 expression, thus promoting survival of pancreatic beta-cells. Also regulates expression of NDFIP1, BNIP3, and CCNG1.
Cellular Location	Nucleus {ECO:0000250 UniProtKB:P97368}.

Background

Hox, Pbx and Meis families of transcription factors form heteromeric complexes and bind DNA through specific homeobox domains. Hox proteins are involved in regulating tissue patterning during development, and are also expressed in lineage- and stage-specific patterns during adult hematopoietic differentiation and in leukemias. The Hox proteins, which include paralog groups 1-10, have a low intrinsic binding affinity for DNA and are instead associated into cooperative DNA binding complexes with Pbx or the Pbx-related Meis proteins, which result in an enhanced Hox-DNA binding affinity and an increased selectivity for the binding site. Both Meis1 and Meis2 (also known as Meis-related gene 1 or Mrg1) are members of the TALE ("three amino acid loop extension") family of homeodomain-containing proteins. In addition to binding with Hox proteins, Meis1 also forms heterodimers with the ubiquitously expressed Pbx proteins, including Pbx1, Pbx2 and Pbx3, and these complexes contain distinct DNA-binding specificities. Like Hox and Pbx proteins, Meis1 is implicated in oncogenesis, as it is overexpressed as a result of adjacent retroviral insertion in BHL-2 myeloid leukemias. Two Meis-related proteins, Meis2 and Meis3 (also designated Mrg1 and Mrg2, respectively), possess largely similar sequence identity with Meis1 and are expressed in normal tissues and myeloid leukemias. In the pancreas, Meis2 preferentially associates with Pbx1, and together they associate with the pancreas-specific homeodomain factor, Pdx1, to repress Pdx1-induced transcriptional activation.

Images



Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by microwave in sodium citrate buffer (pH6.0) ; Block endogenous peroxidase by 3% hydrogen peroxide for 30 minutes; Blocking buffer (3% BSA) at RT for 30min; Antibody incubation with (Meis homeobox 3) Polyclonal Antibody, Unconjugated (AP54661) at 1:400 overnight at 4°C, followed by conjugation to the secondary antibody (labeled with HRP)and DAB staining.

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