

MATH5 Rabbit pAb

Catalog # AP97940

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8N100
Other Accession	Q8N100
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16871
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MAT2A
Epitope Specificity	31-120/152
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 basic helix-loop-helix (bHLH) domain.
Post-translational modifications	The alpha' subunit is a post-translationally modified version of MAT2A.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This intronless gene encodes a member of the basic helix-loop-helix family of transcription factors, with similarity to Drosophila atonal gene that controls photoreceptor development. Studies in mice suggest that this gene plays a central role in retinal ganglion cell and optic nerve formation. Mutations in this gene are associated with nonsyndromic congenital retinal nonattachment. [provided by RefSeq, Dec 2011]

Additional Information

Gene ID	220202
Other Names	Math5; NCRNA; PHPVAR; RNANC; bHLHa13; ATOH7_HUMAN; ATOH7; Atonal bHLH transcription factor 7; Class A basic helix-loop-helix protein 13 (bHLHa13); Protein atonal homolog 7; ATH5; ATOH7_MOUSE; Helix-loop-helix protein mATH-5 (mATH5); atonal homolog 7 (Drosophila); atonal homolog bHLH transcription factor 7
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	ATOH7 (HGNC:13907)
Synonyms	ATH5, BHLHA13
Function	Transcription factor that binds to DNA at the consensus sequence 5'-CAG[GC]TG-3' (PubMed:31696227). Dimerization with TCF3 isoform E47 may be required in certain situations (PubMed:31696227). Binds to gene promoters and enhancer elements, and thereby regulates a transcriptional program of retinal ganglion cell (RGC) determinant genes (By similarity). Although the exact mechanism is not certain, retinal transcription regulation by ATOH7 has a role in RGC determination and survival, photoreceptor population development, targeting of RGC axons to the optic nerve and development of the retino-hypothalamic tract (By similarity). Binds to its own promoter and enhancer sequences, suggesting autoregulation of ATOH7 transcription (By similarity). Required for retinal circadian rhythm photoentrainment (By similarity). Plays a role in brainstem auditory signaling and binaural processing (By similarity).
Cellular Location	Nucleus. Perikaryon {ECO:0000250 UniProtKB:Q9Z2E5}. Cell projection, axon {ECO:0000250 UniProtKB:Q9Z2E5}

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