ATH1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATH1, Polyclonal Antibody
Full Product Name	ATH1, CT (Protein Atonal Homolog 1, Helix-loop-helix Protein hATH-1, Class A Basic Helix-loop-helix Protein 14, bHLHa14, ATOH1, MATH1, HATH1) (MaxLight 490)
Product Gene Name	anti-ATH1 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human ATOH1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	21.3 kDa (198aa)
OMIM	601461
3D Structure	ModBase 3D Structure for Q92858
Immunogen	Synthetic peptide selected from the C-terminal region of human ATOH1 (KLH).
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-ATH1 antibody	Antibodies; Transcription Factors
Applications Tested/Suitable for anti-ATH1 antibody	Western Blot (WB), FLISA
Application Notes for anti-ATH1 antibody	WB: 1:50-1:100 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-ATH1 antibody	MBS6464351 is an antibody targeting ATH1. Also known as ATH1, CT (Protein Atonal Homolog 1, Helix-loop-helix Protein hATH-1, Class A Basic Helix-loop-helix Protein 14, bHLHa14, ATOH1, MATH1, HATH1) (MaxLight 490). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-ATH1 antibody	1. Aragaki, M., Biochem. Biophys. Res. Commun. 368(4), 923-929 (2008). 2. Scheffer, D., FEBS Lett. 581(24), 4651-4656 (2007).
Other Notes	Small volumes of anti-ATH1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATH1. It may not necessarily be applicable to this product.

NCBI GI #	4885075
NCBI GeneID	474
NCBI Accession #	NP_005163
UniProt Primary Accession #	Q92858
UniProt Secondary Accession #	Q14CT9
UniProt Related Accession #	Q92858
GenBank Nucleotide #	NM_005172.1
NCBI Official Full Name	protein atonal homolog 1
NCBI Official Synonym Full Names	atonal bHLH transcription factor 1
NCBI Official Symbol	ATOH1
NCBI Official Synonym Symbols	ATH1; HATH1; MATH-1; bHLHa14
UniProt Protein Name	Protein atonal homolog 1
UniProt Synonym Protein Names	Class A basic helix-loop-helix protein 14; bHLHa14; Helix-loop-helix protein hATH-1; hATH1
Protein Family	Homeobox protein
UniProt Gene Name	ATOH1
UniProt Synonym Gene Names	ATH1; BHLHA14; bHLHa14; hATH1
UniProt Entry Name	ATOH1_HUMAN
NCBI Protein Information	protein atonal homolog 1
NCBI Summary for ATH1	This protein belongs to the basic helix-loop-helix (BHLH) family of transcription factors. It activates E-box dependent transcription along with E47. [provided by RefSeq, Jul 2008]
UniProt Comments for ATH1	ATOH1: a conserved transcription factor that regulates secretory cell differentiation in colonic epithelium. Activates E box-dependent transcription in collaboration with TCF3/E47, but the activity is completely antagonized by the negative regulator of neurogenesis HES1. May play a role in the differentiation of subsets of neural cells by activating E box- dependent transcription . Efficient DNA binding requires dimerization with another bHLH protein. Loss of ATOH1 expression in the colon of mice initiates colon cancer. ATOH1 has been silenced in most human colon cancers, and reactivation of this gene in cultured human colon cancer cells is anti-proliferative and induces apoptosis. Protein type: DNA-binding; Transcription factor; Cell development/differentiation Chromosomal Location of Human Ortholog: 4q22 Cellular Component: nucleus Molecular Function: protein dimerization activity; chromatin DNA binding; transcription factor activity Biological Process: transcription from RNA polymerase II promoter; axon guidance; inner ear morphogenesis; central nervous system development; auditory receptor cell fate determination; neuron migration; positive regulation of transcription from RNA polymerase II promoter; positive regulation of auditory receptor cell differentiation; auditory receptor cell fate specification; cerebral cortex development; positive regulation of neuron differentiation; negative regulation of apoptosis
Research Articles on ATH1	**1.** ATOH1 expression was detected consistently in recurrent and metastatic SHH medulloblastoma. Chromatin immunoprecipitation sequencing and gene expression profiling identified candidate ATOH1 targets in tumor cells involved in development and tumorigenesis.

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