

## ATOH8 Antibody

*ATOH8: Helix-loop-helix protein hATH-6, HATH6, Protein atonal homolog 8, MATH6*

**CATALOG No.: 5109**

### BACKGROUND:

Basic helix-loop-helix (bHLH) transcription factors play important roles in differentiation processes during embryonic development of vertebrates. ATOH8 (MATH6) is a tissue-restricted member of the atonal superfamily of bHLH transcription factors that exhibits 43–57% identity in the bHLH domain with other mammalian atonal paralogs including the NeuroD and Neurogenin factors (1,2). In the mouse, ATOH8 has been implicated in the specification and differentiation of neuronal cell lineages in the brain and may also participate in kidney development (3,4). Recent studies show that ATOH8 is a novel component of the pancreatic transcriptional network during embryonic development and suggest a potential role as a modulator of the differentiation program initiated by the pro-endocrine factor Neurog3. It is indispensable for early embryonic development, suggesting a more widespread function for this factor in tissue-specific differentiation processes that are dependent on class II bHLH genes (5).

### SOURCE:

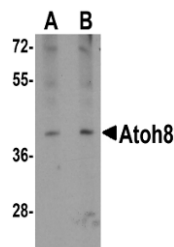
Rabbit polyclonal ATOH8 antibody was raised against a 15 amino acid peptide near the carboxy terminus of human ATOH8 (GenBank accession no. NP\_116216).

### APPLICATION:

ATOH8 antibody can be used for detection of ATOH8 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) A-20 Cell lysate can be used as positive control. ATOH8 antibody is human, mouse and rat reactive. **For research use only.**

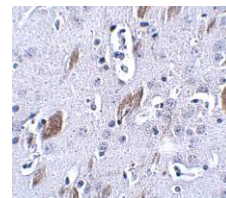
### STORAGE:

ATOH8 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of ATOH8 in A-20 cell lysate with ATOH8 antibody at (A) 1 and (B) 2 µg/ml.

Immunohistochemistry of ATOH8 in mouse brain tissue with ATOH8 antibody at 5 µg/ml.



### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **5109P**.

A-20 Cell Lysate, Catalog No. **1288**.

ALDH3A2 Antibody, Catalog No. **4789**.

GDF6 (CT) Antibody, Catalog No. **4691**.

ATOH7 Antibody, Catalog No. **45-307**.

### REFERENCES:

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2. Ledent V and Vervoort M. The basic helix-loop-helix protein family: comparative genomics and phylogenetic analysis. *Genome Res.* 2001; 11:754–770.
3. Inoue C, Bae SK, Takatsuka K, et al. Math6, a bHLH gene expressed in the developing nervous system, regulates neuronal versus glial differentiation. *Genes Cells* 2001; 6:977–986.
4. Ross MD, Martinka S, Mukherjee A, et al. Math6 expression during kidney development and altered expression in a mouse model of glomerulosclerosis. *Dev Dyn.* 2006; 235:3102–3109.
5. Lynn FC, Sanchez L, Gomis R, et al. Identification of the bHLH factor Math6 as a novel component of the embryonic pancreas transcriptional network. *PLoS One* 2008; 18:3:e2430. (09-01D)