# ATOH7 Antibody – Goat Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | Atoh7, Polyclonal Antibody |
| **Full Product Name** | Goat anti-Atoh7 (mouse) Antibody |
| **Product Gene Name** | anti-Atoh7 antibody |
| **Product Synonym Names** | Atoh7; atonal homolog 7 (Drosophila); Math; atonal homolog 7; Atoh7 antibody; atonal homolog 7 (Drosophila) antibody; Math antibody; atonal homolog 7 antibody; Atoh7 (mouse) |
| **Immunogen Sequence** | CEQRGRDHPY LP |
| **Clonality** | Polyclonal |
| **Host** | Goat |
| **Species Reactivity** | Expected from sequence similarity: Mouse, Rat |
| **Form/Format** | Supplied at 0.5 mg/ml in Tris saline, 0. 02% sodium azide, pH7.3 with 0.5% bovine serum albumin. |
| **Purity/Purification** | Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide. |
| **Concentration** | 100ug specific antibody in 200ul (lot specific) |
| **Preparation and Storage** | Aliquot and store at -20 degree C. Minimize freezing and thawing. |
| **Antibody/Peptide Pairs** | Atoh7 peptide (MBS426112) is used for blocking the activity of Atoh7 antibody (MBS420210) |
| **Molecular Weight** | 16,569 Da |
| **Immunogen** | Peptide with sequence CEQRGRDHPYLP, from the internal region of the protein sequence according to NP_058560.1. |
| **Epitope** | Internal region |
| **ISO Certification** | Manufactured in an ISO 9001:2008 Certified Laboratory. |
| **Applications Tested/Suitable for anti-Atoh7 antibody** | Peptide ELISA (EIA) |
| **Application Notes for anti-Atoh7 antibody** | Peptide ELISA: Antibody detection limit dilution 1: 32000.<br>Western Blot: Preliminary experiments gave bands at approx 50kDa and 38kDa in Mouse Eye and Rat Optical Nerve lysates after 0.3ug/ml antibody staining. Please note that currently we cannot find an explanation in the literature for the bands we observe given the calculated size of 16.9kDa according to NP_058560.1. Both detected bands were successfully blocked by incubation with the immunizing peptide (and BLAST results with the immunizing peptide sequence did not identify any other proteins to explain the additional bands). |
| **Related Product Information for anti-Atoh7 antibody** | MBS420210 is an antibody targeting Atoh7. Also known as Goat anti-Atoh7 (mouse) Antibody. Reactive in Expected from sequence similarity: Mouse, Rat. Host: Goat. |
| **Other Notes** | Small volumes of anti-Atoh7 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 Atoh7. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 8392932 |

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| **NCBI GeneID** | 53404 |
| **NCBI Accession #** | NP_058560.1 |
| **UniProt Related Accession #** | Q9Z2E5 |
| **GenBank Nucleotide #** | NM_016864.1 |
| **NCBI Official Full Name** | protein atonal homolog 7 |
| **NCBI Official Synonym Full Names** | atonal bHLH transcription factor 7 |
| **NCBI Official Symbol** | Atoh7 |
| **NCBI Official Synonym Symbols** | Math5; bHLHa13 |
| **UniProt Protein Name** | Protein atonal homolog 7 |
| **UniProt Synonym Protein Names** | Helix-loop-helix protein mATH-5; mATH5 |
| **Protein Family** | Protein atonal |
| **UniProt Gene Name** | Atoh7 |
| **UniProt Synonym Gene Names** | Ath5; mATH5 |
| **UniProt Entry Name** | ATOH7_MOUSE |
| **NCBI Protein Information** | protein atonal homolog 7 |
| **UniProt Comments for Atoh7** | ATOH7: Transcription factor involved in the differentiation of retinal ganglion cells. Defects in ATOH7 are the cause of retinal non-attachment congenital non-syndromic (RNANC). A condition characterized by separation of the inner layers of the retina (neural retina) from the pigment epithelium. Clinical findings include lack of perception of light, massive retrolental mass, shallow anterior chamber, and nystagmus in otherwise normal individuals. RNANC is caused by a 6.5 kb deletion that spans a remote cis regulatory element 20 kb upstream from ATOH7.<br><br>Cellular Component: nucleus<br><br>Molecular Function: DNA binding; protein dimerization activity<br><br>Biological Process: cell differentiation; circadian rhythm; entrainment of circadian clock; multicellular organismal development; nervous system development; optic nerve development; regulation of transcription, DNA-dependent; transcription, DNA-dependent |
| **Research Articles on Atoh7** | **1.** Pou4f2 and Isl1, are sufficient to specify the retinal ganglion cell fate in ATOH7 deficient mice |
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