

## Product datasheet for **MC204248**

### **Atoh8 (NM\_153778) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Atoh8 (NM_153778) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atoh8
Synonyms:	4933425C05Rik; bHLHa21; Hath6; Math6; okadin
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >BC023684  
 CCACGCGTCCGCCACGCGTCCGCCACGCGTCCGGCGCGTCCCGGGCAGTCCCACGCCCCAGCCTCACG  
 CCGTCCTCGCCATGAAGCACATCCCGGTCTCGAGGACGGGCCGTGGAAGACTGTGTGCGTTAAAGAACT  
 GAACGGCTCAAGAAGCTCAAGCGGAAAGGCAAGGAGCCGGTGGCGCGCGAATGGCTATAAACTTTTC  
 CGATTGGACTTGAAGCTCCCGAGCTCGGCGCCACAGTCAACACCACCGCCACCAACGGGTTCCGGG  
 ACAGGACACAACCGTCCCGATCGCGACCCAGTACCAGCCTCAGTGGCGCCGGCGGTTCTCCAGGTGG  
 AGGCACAGACAGCCAGGGAATCCGGGGCATCAGAGCGCTGAGGTCTCTGACGCGCGCAAACGCGGT  
 TTCGCTCTGGGCACAGTGGGACCGGACTACCCACGCCACCGCCCTCCCGCATCTCAGAGCTTGGCAC  
 CCGGGGATCCCGAGGCGCACTCCTTCCGCGAGCAGGCTCTGCGTCCCGCATCTTGTGTGCGCCCTCC  
 CGCGCGTCCCACACAATCCGCGCCTCTCGACCCCCAGCGGCGCCACAAGAGTCCCCGTGCGCCCTGCG  
 CCCCCACGCGCCGGGGAAAGTTCTACTCGTCAATTTACACGTAATTTACAATAACCACCCGGATT  
 CTTCCGCGTGCCTAGGAAACGGCCAGGCGAAGCGACCGCCCTCAACGGAGATCAAAGCCTGCAGCA  
 GACCCGGAGGCTTCTGGCAACGCCAGGAGCGGACCGGGTGCACACCATCAGCGCAGCCTTCGAGGCG  
 CTGAGGAAGCAGGTGCCGTGCTACTCCTATGGGCAAGCTCTCCAACTGGCCATCCTGAGGATTGCC  
 GTAACACATCTTGTCCCTGGCAGGCTGGCTGACCTGGACTACAGTGGCACCACAGCAACCTCAGCTT  
 CTCGAGTGTGTGACGCGTGCACCCGACCCCTGCAGGCAAGAGGCGAGCCAAGAAACGGAAGGAGTGA  
 CCTGCCACAGGCTAGACCACAGACACCACTGTGAGTCTTCCCAGTTGGGACTGAGGAGAAAGCTGGGA  
 CCACCAGGAGACGACCAGCCTCATTCTTGTCTTCTCAAGATGCTGCCAGATACTCAGCCCGTGTACCA  
 TCTCTCAGGGTCACTTAGAACAGCACAAGGGCCCGCGCCTCCCTCTCCGTCTCCTGCCATCCAGGGTT  
 ACTTCAGATTTTGCCTTCTGCCTGGTGGGGCGGGCTATTGCCAAAGATTACAGAGATCGTCCAAGGAA  
 ATTATGGATGAGGCCCAACAGCACAACACATCATTGCTGCCCTACCAAGTCCACCTCAAGCCAAAG  
 ATGGATTAGCACTACTGCTAGGAACCATGCAGTGGCACCTGGTGACCATCAGAAGCAGCTTAACCTCC  
 AAGCCAGTGTCTGCTGTGCTGGGCCCTGAGCAGCTGGTTGTCTTCGAGACAAGCTTCTAGAGCCACG  
 ACAAGCAGGCTGCTGGTGAAGGTGGAGCCGAGATCCTTGGCCCTTCCATTAGCTACCCAGACCTCTG  
 ACTCCTGTTCCCGATACTCTTGGGTCCTGGCTCCTTCTTGACCCCAAGCCTCCTGAGAGAGGAGGAA  
 GGGGAGACTAAAGAAGCAATATTGCCCATACCCACCCGGGATGTGCCCAAGGAAATCTTTCTGACA  
 GTCCTTGTCTCCAGCCCTGCCAGCAGGTGCGCCTCACCAGTGGTCAGGTTACAGGTAACACTTAAAT  
 TAGCACTGTGAGAGCAGCTGCCTGTGGACAGGCCAGGAGGACTTAGGGAGGAAGGGACCAGG  
 GGAATGGCCAGGATGTGGGGAAGGGGCAGTTCAAAGCCAAGGCTGCTCCTGTGCTCCAGAGGCCA  
 AAGCTGTTACATCTGTGTGCAACCATCTGCTTCAAATGAAAGTAAAAGCGGCAACATATAAAAAAAAAA AAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_153778

**Insert Size:** 969 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [BC023684](#), [AAH23684](#)

RefSeq Size: 2035 bp

RefSeq ORF: 969 bp

Locus ID: 71093

UniProt ID: [Q99NA2](#)

Cytogenetics: 6 C1

**Gene Summary:** Transcription factor that binds a palindromic (canonical) core consensus DNA sequence 5'-CANNTG- 3' known as an E-box element, possibly as a heterodimer with other bHLH proteins (By similarity). Regulates endothelial cell proliferation, migration and tube-like structures formation (By similarity). Modulates endothelial cell differentiation through NOS3 (By similarity). May be implicated in specification and differentiation of neuronal cell lineages in the brain (PubMed:11733035). May participate in kidney development and may be involved in podocyte differentiation (PubMed:16937370). During early embryonic development is involved in tissue-specific differentiation processes that are dependent on class II bHLH factors and namely modulates the differentiation program initiated by the pro-endocrine factor NEUROG3 (PubMed:18560595). During myogenesis, may play a role during the transition of myoblasts from the proliferative phase to the differentiation phase (PubMed:24186058). Positively regulates HAMP transcription in two ways, firstly by acting directly on the HAMP promoter via E-boxes binding and indirectly through increased phosphorylation of SMAD protein complex (By similarity). Repress NEUROG3-dependent gene activation in a gene-specific manner through at least two mechanisms; requires only either the sequestering of a general partner such as TCF3 through heterodimerization, either also requires binding of the bHLH domain to DNA via a basic motif (PubMed:23938248). [UniProtKB/Swiss-Prot Function]