

## Product datasheet for RC203005L3V

#### OriGene Technologies, Inc.

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### Protein atonal homolog 8 (ATOH8) (NM 032827) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

**Product Name:** Protein atonal homolog 8 (ATOH8) (NM\_032827) Human Tagged ORF Clone Lentiviral Particle

Symbol: Protein atonal homolog 8

**Synonyms:** bHLHa21; HATH6

Mammalian Cell

Selection:

Puromycin

NM 032827

Vector:

ACCN:

pLenti-C-Myc-DDK-P2A-Puro (PS100092)

Tag: Myc-DDK

ORF Size: 963 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC203005).

Sequence:

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This

naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**RefSeg:** NM 032827.3

 RefSeq Size:
 2455 bp

 RefSeq ORF:
 966 bp

 Locus ID:
 84913

 UniProt ID:
 Q96SQ7

 Cytogenetics:
 2p11.2

MW: 34.5 kDa





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#### **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 (PubMed:24236640). Regulates endothelial cell proliferation, migration and tube-like structures formation (PubMed:24463812). Modulates endothelial cell differentiation through NOS3 (PubMed:24463812). May be implicated in specification and differentiation of neuronal cell lineages in the brain (By similarity). May participate in kidney development and may be involved in podocyte differentiation (By similarity). 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 (By similarity). During myogenesis, may play a role during the transition of myoblasts from the proliferative phase to the differentiation phase (By similarity). 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 (PubMed:24236640). 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 (By similarity).[UniProtKB/Swiss-Prot Function]