

## Product datasheet for RC215938

### BHLHA15 (NM\_177455) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BHLHA15 (NM\_177455) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** BHLHA15  
**Synonyms:** BHLHB8; MIST1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC215938 representing NM\_177455  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAAGACCAAGAACCGGCCCCACGGCGCCGGGCCCGGTGCAGGACACAGAGGCCACCCCGGGGAGG  
 GGACGCCCCGACGGGTCCCTGCCGAACCCGGGGCCAGAGCCGGCCAAGGGTCTGCGGAGCCGGCCGGCCCG  
 GGCCGACGAAGGGCTCCGGGCGAGGGCAGGCGCAGGCGCCAGGACCCTCCGGGCCGGTGGCCGTCGT  
 GACAGCAGCATCCAGCGCGGCTGGAGAGCAACGAGAGGGAGCGGAGCGGATGCACAAGCTAAATAACG  
 CCTTCCAGGCCCTGCGTGAAGTCATCCCCACGTGCGCGCGGACAAGAAGCTCTCCAAGATCGAGACGCT  
 CAGCTGGCCAAGAACTACATCAAATCGCTGACGGCCACCATCCTGACCATGTCCAGCAGCCGCTCCCA  
 GGCTGGAGGGGCGGGCCCAAGCTCTACCAGCACTACCAGCAGCAGCAGCAGGTGGCTGGGGGTGCGT  
 TGGGGGCCACGGAGGCCAGCCCAAGGGCCACCTGCAGAGGTAAGTCCACGAGATCCACAGCTTCCGAGA  
 GGGCACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC215938 representing NM\_177455  
 Red=Cloning site Green=Tags(s)

MKTKNRP RRAPVQDTEATPGE GTPDGSLPNPGEPAKGLRSRPARAAARAPGEGRRRRPGSPGPGRR  
 DSSIQRRL ESNERERQRMHKLNNAFQALREVIPHVRADKLSKIETLTLAKNYIKSLTATILTMSSRLP  
 GLEGPGLKYQHYQQQQVAGGALGATEAQPQGH LQRYSTQIHSFREGT

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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Chromatograms: [https://cdn.origene.com/chromatograms/mk8027\\_h12.zip](https://cdn.origene.com/chromatograms/mk8027_h12.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_177455

ORF Size: 567 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 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.

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_177455.4](#)

**RefSeq Size:** 588 bp

**RefSeq ORF:** 570 bp

**Locus ID:** 168620

**UniProt ID:** [Q7RTS1](#)

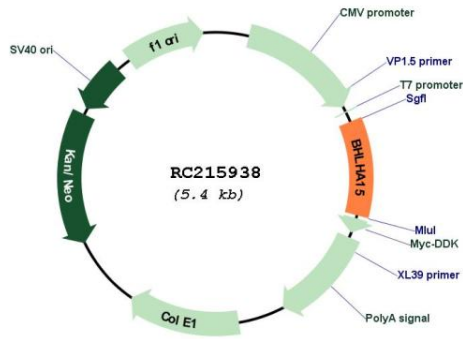
**Cytogenetics:** 7q21.3

**Protein Pathways:** Maturity onset diabetes of the young

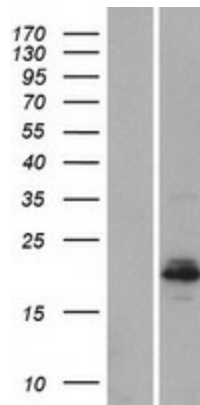
**MW:** 20.6 kDa

**Gene Summary:** Plays a role in controlling the transcriptional activity of MYOD1, ensuring that expanding myoblast populations remain undifferentiated. Repression may occur through muscle-specific E-box occupancy by homodimers. May also negatively regulate bHLH-mediated transcription through an N-terminal repressor domain. Serves as a key regulator of acinar cell function, stability, and identity. Also required for normal organelle localization in exocrine cells and for mitochondrial calcium ion transport. May function as a unique regulator of gene expression in several different embryonic and postnatal cell lineages. Binds to the E-box consensus sequence 5'-CANNTG-3' (By similarity).[UniProtKB/Swiss-Prot Function]

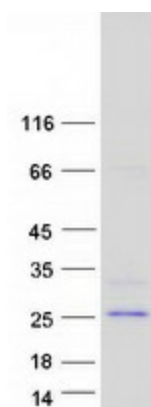
Product images:



Circular map for RC215938



Western blot validation of overexpression lysate (Cat# [LY406171]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215938 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BHLHA15 protein (Cat# [TP315938]). The protein was produced from HEK293T cells transfected with BHLHA15 cDNA clone (Cat# RC215938) using MegaTran 2.0 (Cat# [TT210002]).