

Product datasheet for SC313016

AUH (NM_001698) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: AUH (NM_001698) Human Untagged Clone
Tag: Tag Free
Symbol: AUH
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >SC313016 representing NM_001698
 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGCCGGGTGGCGGCCACCTGGGGCCTTGGGATCCCTGCATGCTGGCGGCCCGCCCTGGTGG
 CCGCTTGCACTGCGTGGCTCTGCCCGGGTTGAGGCTGCCCGGCTCGTTGGCAGGCCGGCAGCGGGCCC
 GGCGATCTGGGCCAGGGCTGGGTACCTGCGGCCGGGGTCCCGCCCCGAAAAGGGGCTACAGCTCTGAG
 ATGAAGACGGAGGACGAGCTGCGGGTGGCGCACCTGGAGGAGGAGAACCAGGAATTGTGGTCTTGGAA
 TAAACAGAGCTTATGGCAAAAATTCACCTCAGTAAAAATCTTATAAAAATGCTATCAAAAAGCTGGGATGC
 TTTGAAATCTGATAAGAAAGTACGGACCATAATAATCAGGAGTGAAGTCCAGGGATATTCTGTGCTGGT
 GCTGACCTTAAGGAAAGAGCCAAAATGAGTTCAGTGAAGTTGGTCTTTTGTCTCCAAAATAAGAGCAG
 TGATTAACGATATTGCTAATCTTCCAGTACCAACAATTGCAGCAATAGATGGACTCGCTTTAGGTGGTGG
 TCTTGAAGTGGCTTTAGCCTGTGATATACGAGTAGCAGCTTCTCTGCAAAAATGGGCTGGTTGAAACA
 AAATTGGCGATTATTCTGGTGGAGGGGGACACAGCGATTGCCACGCGCCATTGGAATGTCCCTGGCCA
 AGGAGCTCATATTCTGCGCGAGTCTCGATGGCAAAGAAGCCAAAGCAGTGGGCTTAATCAGCCACGT
 TCTGGAACAGAACCAGGAGGGAGACGCGCCTACAGGAAGGCCTTGGACCTGGCGAGAGAGTTTTTACCT
 CAGGGACCTGTTGCAATGAGAGTGGCAAATTAGCAATTAATCAAGGGATGGAGGTCGATTTAGTAACAG
 GGTTAGCCATAGAAGAAGCTTGTATGCTCAGACCATTCCAACAAAAGACAGACTTGAAGTCTTCTTGC
 TTTTAAAGAGAAAAGGCCCCCTCGCTATAAAGGAGAATAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Please inquire
ACCN: NM_001698



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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: [NM_001698.1](#), [NP_001689.1](#)

RefSeq Size: 1548 bp

RefSeq ORF: 1020 bp

Locus ID: 549

UniProt ID: [Q13825](#)

Cytogenetics: 9q22.31

Domains: ECH

Protein Pathways: Metabolic pathways, Valine, leucine and isoleucine degradation

Gene Summary:

This gene encodes bifunctional mitochondrial protein that has both RNA-binding and hydratase activities. The encoded protein is a methylglutaconyl-CoA hydratase that catalyzes the hydration of 3-methylglutaconyl-CoA to 3-hydroxy-3-methyl-glutaryl-CoA, a critical step in the leucine degradation pathway. This protein also binds AU-rich elements (AREs) found in the 3' UTRs of rapidly decaying mRNAs including c-fos, c-myc and granulocyte/ macrophage colony stimulating factor. ARE elements are involved in directing RNA to rapid degradation and deadenylation. This protein is localizes to the mitochondrial matrix and the inner mitochondrial membrane and may be involved in mitochondrial protein synthesis. Mutations in this gene are the cause of 3-methylglutaconic aciduria, type I. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).