

Product datasheet for **MR209195**

Ythdf3 (BC057158) Mouse Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Ythdf3 (BC057158) Mouse Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Ythdf3 |
| Synonyms: | 9130022A11Rik |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>MR209195 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTCTATCTTGATTTGACTTTGCTTCATAGGGCAACAGAGAAACAGGCGAAGAATCATTTTCAGTAC
 AAAATGGTTTCGATTCATCAAAAAGATGCTGAAAATGATGATGATTTTGGCCATACTTAAGTAGCCAGAC
 AAATCAGAATAACAGCTATCCACCAATGTCAGATCCATATATGCCTAGTTACTATGCTCCGTCATTGGA
 TTTCCATATTCTCTGGGGAAGCAGCATGGTCCACGGCTGGAGATCAGCCTATGCCATATCTGACAACT
 ATGGACAAATGAGTAATGGAGAATCATTATATACCAGATGGTGTTTTGTAGCAACCAGGGCATTAGG
 AAATACCCCTCCATTTCTGGTCAACATGGATTTAACTTTTTCTGGTAAATGCTGATTTCTACATGG
 GGAACAAGTGGATCTCAGGGACAATCAACAAAAATTCTGCTTATAGTAGCAGTTACGGCTATCCACCTA
 GTTCTCTGGGAGAGCTATTACTGATGGACAGGCCGATTTGGCAATGATACTTTGAGTAAGGTGCCTGG
 CATTAGTAGTATTGAGCAAGGCATGACTGGACTGAAAATTTGGTGGTACCTGACAGCTGCGGTGACGAAA
 ACTGTAGGTACAGCCTTGAGCAGCAGTGGTATGACTAGCATTGCAACCAATAATGTGCCCTGTTAGCA
 GTGCAGCACCTAAACCACTTCTGGGCTGCTATTGCCAGAAAGCCTGCAAAACCTCAGCCGAAACTTAA
 ACCCAAGGGCAATGTGGGAATGGGGTCTGCTGTGCCACCACCTCTATAAAAACAACATGAATATT
 GGAAGTTGGGATGAAAAGGGTCAAGTGGTAAAGGCTCCACCAACCAACCAAGTTCTGCCTCTCAAACCTA
 TAATCCAGCAGCCTCAGCCATTAATCAACCACCACCTTGGTGCAGCAAGCAACTGCCTCAACAGCAGCC
 TCAGCCACCACAACCACAGCAGCAACAAGGACCTCAGCCACAGGCCAGCCTCACCAGTGCAGTCTCAA
 CAGCCACAGTTGCAGAATCGTTGGTGTGCTGCTGTTAGTGTACCTTACCTTAGTGTAGAGGTGCATCC
 CAGGCAGTGAAAACCTTTGGTTAGTGTGTGCTGTTAGTGTACCTTACCTTAGTGTAGAGGTGCATCC
 AGTGTGAAAAACTAAAGGCCATAAACAATTATAATCCCAAAGACTTTGATTGGAACCTGAAGAATGGA
 CGTGTGTTATAATTAAGAGCTATTCTGAGGATGATATACATCGTTCCATCAAGTACTCTATCTGGTGT
 GACTGAGCATGGTAATAAGCGTTTGGATGCAGCTTATCGTTCCCTGAATGGGAAAGGCCACTCTATTT
 ACTCTTCAAGTGTGAATGGCAGTGGACATTTTTGTGGAGTGGTGAATGAAGTCTGTTGTAGACTATAAT
 GCTTATGCTGGTCTGGTCTCAGGATAAGTGGAAAGGCAAAATTTGAAGTAAATGGATCTTTGTCAAAG
 ATGTTCCCAATAACCAATTACGACATATTCGCTTAGAAAAATAATGACAACAAACAGTAACCAATTCAAG
 GGACACTAAGAAGTACCCCTAGAAAAAGCAAAGCAAGTGTAAAATAATCGCTACTTTCAAGCATAACC
 ACCTCAATCTTTGATGACTTTGCACATTATGAAAAGCGTCAAGAGGAGGGAAGCCATGCGAAGGGAGA
 GAAATAGAAACAAGCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209195 protein sequence
 Red=Cloning site Green=Tags(s)

MFYLDLTLHRAETEETGEESFSVQNGSIHQKDAVNDDDFEPYLSSTQNNNSYPPMSDPYMPSSYAPSIG
 FPYSLGEAAWSTAGDQMPYLTTYGQMSNGEHHYIPDGVFSQPGALGNTPPFLGQHGFNFPGNADFSTW
 GTSGSQGSTQNSAYSSSYGYPSSLGRAITDQAGFNDLTKVPGISSIEQGMTGLKIGDGLTAAVTK
 TVGTALSSSGMTSIATNNVPPVSSAAPKPTSWAAIARKPAKPQPKLKPKNVIGGSAVPPPIKHNMI
 GTWDEKGSVVKAPPTQPVLPPQTIIQQPQLIQPPPLVQSPLPQQPQPQQPQQQGPQQAQPHVQSQ
 QPQLQNRWVAPRNRGTGFNQNGTSENFLGVVPSASPSSVEVHPVLEKLAINNYPKDFDWNKNG
 RVFIIKSYSEDDIHRSIKYSIWSTEHNKRLDAAAYRSLNGKGPLYLLFSVNGSGHFCGVAEMKSVVDYN
 AYAGVWSQDKWKGFVWKWIFVKDVPNNQLRHIRLENNDNKPVNRSRDTQEVPLEKAKQVLKIIATFKHT
 TSIFDDFAHYEKRQEEEEAMRRERNRKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

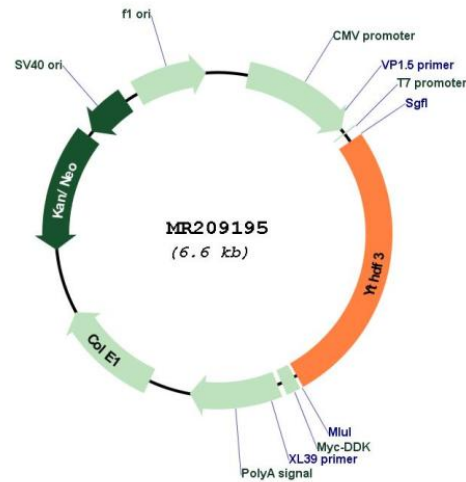
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: BC057158

ORF Size: 1767 bp

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| 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 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: | <ol style="list-style-type: none">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: | BC057158 , AAH57158 |
| RefSeq Size: | 3173 bp |
| RefSeq ORF: | 1769 bp |
| Locus ID: | 229096 |
| Cytogenetics: | 3 A1 |
| MW: | 64.7 kDa |
| Gene Summary: | Specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs and promotes RNA translation efficiency (By similarity). M6A is a modification present at internal sites of mRNAs and some non-coding RNAs and plays a role in the efficiency of mRNA splicing, processing and stability (By similarity). Shares m6A-containing mRNAs targets with YTHDF1 and YTHDF2, and regulates different processes depending on the context (By similarity). Facilitates the translation of targeted mRNAs in cooperation with YTHDF1 by binding to m6A-containing mRNAs and interacting with 40S and 60S ribosome subunits (By similarity). Acts as a negative regulator of type I interferon response by down-regulating interferon-stimulated genes (ISGs) expression: acts by binding to FOXO3 mRNAs and promoting their translation (PubMed:30591559). Binds to FOXO3 mRNAs independently of METTL3-mediated m6A modification (PubMed:30591559). Can also act as a regulator of mRNA stability in cooperation with YTHDF2 by binding to m6A-containing mRNA and promoting their degradation (By similarity). Recognizes and binds m6A-containing circular RNAs (circRNAs) and promotes their translation (By similarity). circRNAs are generated through back-splicing of pre-mRNAs, a non-canonical splicing process promoted by dsRNA structures across circularizing exons (By similarity).[UniProtKB/Swiss-Prot Function] |