

## Product datasheet for **MC219572**

### **Ythdf3 (NM\_172677) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ythdf3 (NM_172677) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ythdf3
Synonyms:	9130022A11Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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## Fully Sequenced ORF:

>MC219572 representing NM\_172677

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGC**

ATGTCAGCCACTAGCGTGGATCAGAGACCTAAAGGGCAAGGAAATAAAGTTTCAGTACAAAATGGTTCGA  
TTCATCAAAAAGATGCTGTAAATGATGATGATTTTGAGCCATACTTAAGTAGCCAGACAAATCAGAAATA  
TAGGAGAGCAAAACAGTTGTTTCATTGTAATAACAGCTATCCACCAATGTCAGATCCATATATGCCTAGT  
TACTATGCTCCGTCCATTGGATTTCATATTCTCTTGGGAAGCAGCATGGTCCACGGCTGGAGATCAGC  
CTATGCCATATCTGACAACCTATGGACAAATGAGTAATGGAGAACATCATTATATACCAGATGGTGT  
TAGTCAACCAGGGGCATTAGGAAATACCCCTCCATTTCTTGGTCAACATGGATTTAACTTTTTCTCGGT  
AATGCTGATTTCTCTACATGGGAACAAGTGGATCTCAGGACAAATCAACACAAAATTCTGCTTATAGTA  
GCAGTTACGGCTATCCACCTAGTTCTCTTGGGAGAGCTATTACTGATGGACAGGCCGGATTTGGCAATGA  
TACTTTGAGTAAGGTGCCTGGCATTAGTAGTATTGAGCAAGGCATGACTGGACTGAAAATTTGGTGGTGAC  
CTGACAGCTGCGGTGACGAAAACGTAGGTACAGCCTTGAGCAGCAGTGGTATGACTAGCATTGCAACCA  
ATAATGTGCCCCCTGTTAGCAGTGCAGCACCTAAACCAACTTCTTGGGCTGCTATTGCCAGAAAGCCTGC  
AAAACCTCAGCCGAACTTAAACCAAGGGCAATGTGGGAATTGGGGTTCTGCTGTGCCACCACCTCCT  
ATAAAACACAACATGAATATTGGAACCTGGGATGAAAAGGGGTGAGTGGTAAAGGCTCCACCAACCCAAC  
CAGTTCTGCCTCCTCAAACTATAATCCAGCAGCCTCAGCCATTAAATCAACCACCACCATTTGGTGCAAG  
CCAACCTGCCTCAACAGCAGCCTCAGCCACCACAACCACAGCAGCAACAAGGACCTCAGCCACAGGCCAG  
CCTCACCAAGTGCAGTCTCAACAGCCACAGTTGCAGAATCGTTGGGTAGCTCCTCGGAATAGGGGAACCG  
GCTTCAACCAGAACAATGGAACAGGCAGTGAAAACCTTTGGTTAGGTGTTGTGCCTGTTAGTGCTTCACC  
TTCTAGTGTAGAGGTGCATCCAGTGTGAAAACTAAAGGCCATAAACAATTATAATCCCAAAGACTTT  
GATTGGAACCTGAAGAATGGACGTGTGTTTATAATTAAGAGCTATTCTGAGGATGATATACATCGTTCCA  
TCAAGTACTCTATCTGGTGTAGTACTGAGCATGGTAATAAGCGTTTGGATGCAGCTTATCGTTCCCTGAA  
TGGGAAAGGCCCACTCTATTTACTCTTCAGTGTGAATGGCAGTGGACATTTTGTGGAGTGGCTGAAATG  
AAGTCTGTTGTAGACTATAATGCTTATGCTGGTGTCTGGTCTCAGGATAAGTGAAGGGCAAAATTTGAAG  
TTAAATGGATCTTTGTCAAAGATGTTCCCAATAACCAATTACGACATATTCGCTTAGAAAATAATGACAA  
CAAACAGTAACCAATTCAAGGGACACTCAAGAAGTACCCCTAGAAAAAGCAAAGCAAGTGCTTAAATA  
ATCGCTACTTTCAAGCATACCACCTCAATCTTTGATGACTTTGCACATTATGAAAAGCGTCAAGAGGAGG  
AGGAAGCCATGCGAAGGGAGAGAAATAGAAACAAGCA**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

## Restriction Sites:

Sgfl-MluI

## ACCN:

NM\_172677

## Insert Size:

1791 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](#)

**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\\_172677.3](#), [NP\\_766265.3](#)

**RefSeq Size:** 5190 bp

**RefSeq ORF:** 1791 bp

**Locus ID:** 229096

**UniProt ID:** [Q8BYK6](#)

**Cytogenetics:** 3 A1

**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]