

Product datasheet for **MG209274**

Ythdf3 (NM_172677) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ythdf3 (NM_172677) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ythdf3
Synonyms:	9130022A11Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209274 representing NM_172677
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCAGCCACTAGCGTGGATCAGAGACCTAAAGGGCAAGGAAATAAAGTTTCAGTACAAAATGGTTCGA
 TTCATCAAAAAGATGCTGTAATGATGATGATTTTGGCCATACTTAAGTAGCCAGACAAAATCAGAAATA
 TAGGAGAGCAAAACAGTTGTTTCATTGTAATAACAGCTATCCACCAATGTCAGATCCATATATGCCTAGT
 TACTATGCTCCGTCATTGGATTCCATATTCTCTTGGGGAAGCAGCATGGTCCACGGCTGGAGATCAGC
 CTATGCCATATCTGACAACCTATGGACAAATGAGTAATGGAGAACATCATTATATACCAGATGGTGT
 TAGTCAACCAGGGGCATTAGGAAATACCCCTCCATTTCTTGGTCAACATGGATTTAACTTTTTCTGGT
 AATGCTGATTTCTACATGGGGAACAAGTGGATCTCAGGGACAATCAACACAAAATTCTGCTTATAGTA
 GCAGTTACGGCTATCCACCTAGTTCTCTTGGGAGAGCTATTACTGATGGACAGGCCGGATTTGGCAATGA
 TACTTTGAGTAAGGTGCCTGGCATTAGTAGTATTGAGCAAGGCATGACTGGACTGAAAATGGTGGTGC
 CTGACAGCTGCGGTGACGAAAATGTAGGTACAGCCTTGGCAGCAGTGGTATGACTAGCATTGCAACCA
 ATAATGTGCCCCCTGTTAGCAGTGCAGCACCTAAACCAACTTCTTGGGCTGCTATTGCCAGAAAAGCCTGC
 AAAACCTCAGCCGAAACTTAAACCAAGGGCAATGTGGGAATGGGGGTTCTGCTGTGCCACCACCTCCT
 ATAAAACAACATGAATATTGGAACCTGGGATGAAAAGGGGTCAGTGGTAAAGGCTCCACCAACCCAAC
 CAGTTCTGCCTCCTCAAATAATCCAGCAGCCTCAGCCATTAAATCAACCACCACCTTGGTGCAAAAG
 CCAACTGCCTCAACAGCAGCCTCAGCCACCACAACCACAGCAGCAACAAGGACCTCAGCCACAGGCCAG
 CCTCACCAAGTGCAGTCTCAACAGCCACAGTGAACAACTTTGGTTAGGTGTTGTGCCTGTTAGTGCTTACC
 TTCTAGTGTAGAGGTGCATCCAGTGTGAAAACTAAAGGCCATAAACAAATTATAATCCCAAAGACTTT
 GATTGGAACCTGAAGAATGGACGTGTGTTATAATTAAGAGCTATTCTGAGGATGATATACATCGTTCCA
 TCAAGTACTCTATCTGGTGTAGTACTGAGCATGGTAATAAGCGTTTGGATGCAGCTTATCGTTCCCTGAA
 TGGGAAAGGCCACTCTATTTACTCTTCAGTGTGAATGGCAGTGGACATTTTTGTGGAGTGGCTGAAATG
 AAGTCTGTTGTAGACTATAATGCTTATGCTGGTGTCTGGTCTCAGGATAAGTGGAAAGGGCAAATTTGAAG
 TTAATGGATCTTTGTCAAAGATGTTCCCAATAACCAATTACGACATATCGCTTAGAAAATAATGACAA
 CAAACCAGTAACCAATTCAGGGACACTCAAGAAGTACCCTAGAAAAAGCAAAGCAAGTCTTAAATA
 ATCGCTACTTTCAAGCATACCACCTCAATCTTTGATGACTTTGCACATTATGAAAAGCGTCAAGAGGAGG
 AGGAAGCCATGCGAAGGGAGAGAAATAGAAACAAGCAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209274 representing NM_172677
 Red=Cloning site Green=Tags(s)

MSATSVDQRPKGQGNKVSQNGSIHQKDAVNDDDFEPYLSSTNQKYRRAKQLFHCNNSYPPMSDPYMPS
 YYAPSIGFPYSLGEAAWSTAGDQMPYLTTYGQMSNGEHYIPDGVFSQPGALGNTPPFLGQHGFFPG
 NADFSTWGTSGSQGSTQNSAYSSSYGYPSSLGRAITDQAGFGNDTLKVPGISSEIEQMTGLKIGGD
 LTAAVTKTVGTALSSSGMTSIATNNVPPVSSAAPKPTSWAAIARKPAKQPPLKPKGNVIGGSVAVPPP
 IKHNMNIGTWDEKGSVVKAPPTQPVLPPQTI IQQPQLIQPPPLVQSQLPQQQPQPQQQQGPPQAQ
 PHQVQSQQPQLQNRWVAPRNRGTGFNQNGTGFENFGLGVVPSASPSSVEVHPVLEKKAINNYPKDF
 DWNLKNGRVFIIKSYSEDDIHRSIKYSIWCSTEHGNKRLDAAYRSLNGKGPLYLLF SVNGSGHFCGVAEM
 KSVVDYNAYAGVWSQDKWKGKFEVKWIFVKDVPNNQLRHIRLENNDNKPVNTRDTEVPLEKAKQVLKI
 IATFKHTTSIFDDFAHYEKRQEEEEAMRRERNRNKQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_172677

ORF Size: 1788 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 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.

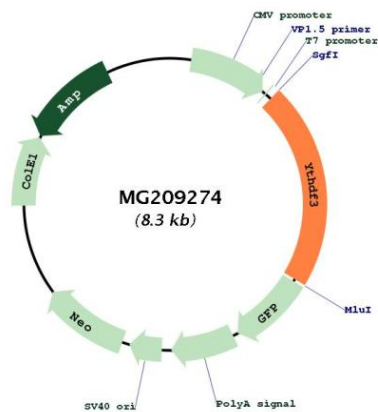
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

RefSeq: [NM_172677.4](#)
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]

Product images:



Circular map for MG209274