

Product datasheet for **SC113954**

YTHDF1 (NM_017798) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	YTHDF1 (NM_017798) Human Untagged Clone
Tag:	Tag Free
Symbol:	YTHDF1
Synonyms:	C20orf21
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC113954 sequence for NM_017798 edited (data generated by NextGen Sequencing)

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ATGTCCGGCCACCAGCGTGGACACCCAGAGAACAAAAGGACAAGATAATAAAGTACAAAAT
GGTTTCGTTACATCAGAAGGATACAGTTCATGACAATGACTTTGAGCCCTACCTTACTGGA
CAGTCAAATCAGAGTAACAGTTACCCCTCAATGAGCGACCCCTACCTGTCCAGCTATTAC
CCGCCGTCCATTGGATTTCCCTTACTCCCTCAATGAGGCTCCGTGGTCTACTGCAGGGGAC
CCTCCGATTCCATACCTACCACCTACGGACAGCTCAGTAACGGAGACCATCATTTTATG
CACGATGCTGTTTTGGGCAGCCTGGGGCCTGGGGAACAACATCTATCAGCACAGGTTT
AATTTTTTCCCTGAAAACCTGCGTTTCTCAGCATGGGGGACAAGTGGGTCTCAAGGTCAG
CAGACCCAGAGCTCCGCGTATGGGAGCAGCTACACCTACCCCGAGCTCCCTGGGTGGC
ACGGTGGTTGATGGGCAGCCAGGCTTTCACAGCGACACCCTCAGCAAGGCCCCCGGGATG
AACAGCCTGGAGCAGGGCATGGTTGGCCTGAAGATTGGGGACGTCAGCTCCTCCGCCGTC
AAGACGGTGGGCTCTGTCGTGAGCAGCGTGGCACTGACTGGTGTCTTTTGGCAACGGT
GGGACAAATGTGAACATGCCAGTTTCAAAGCCGACCTCGTGGGCTGCCATTGCCAGCAAG
CCTGCAAAACCACAGCCTAAAATGAAAACAAAGAGCGGGCCTGTCATGGGGGGTGGGCTG
CCCCCTCCACCCATAAAGCATAACATGGACATTGGCACCTGGGATAACAAGGGGCCTGTG
CCGAAGGGCCCCAGTCCCCAGCAGGCACCCTCTCCACAGGCTGCCCCACAGCCCCAGCAG
GTGGCTCAGCCTCTCCAGCACAGCCCCAGCTTTGGCTCAACCCGAGTATCAGAGCCCT
CAGCAGCCACCCAGACCCGCTGGGTGGCCACGCAACAGAAACGCGGCGTTTGGGCAG
AGCGGAGGGGCTGGCAGCGATAGCAACTCTCTGGAAACGTCCAGCCTAATTCTGCCCCC
AGCGTCGAATCCCACCCCGTCTTGA AAAACTGAAGGCTGCTCACAGCTACAACCCGAAA
GAGTTTGAGTGAATCTGAAAAGCGGGCGTGTGTTTCATCATCAAGAGCTACTCTGAGGAC
GACATCCACCCGCTCCATTAAGTACTCCATCTGGTGTAGCACAGAGCACGGCAACAAGCGC
CTGGACAGCGCCTTCCGCTGCATGAGCAGCAAGGGGCCGCTACCTGCTCTTCAGCGTC
AATGGGAGTGGGCATTTTTGTGGGTGGCCGAGATGAAGTCCCCCGTGGACTACGGCACC
AGTGCCGGGCTGGTCTCAGGACAAGTGAAGGGGAAGTTTGTGATGTCAGTGGATTTTT
GTTAAGGATGTACCCAATAACCAGCTCCGGCACATCAGGCTGGAGAATAACGACAACAAA
CCGGTCACAACTCCCGGGACACCCAGGAGGTGCCCTTAGAAAAAGCCAAGCAAGTGCTG
AAAATTACAGTTCCTACAAGCACACAACCTCCATCTTCGACGACTTTGCTCACTACGAG
AAGCGCCAGGAGGAGGAGGTGGTGCGAAGGAACGGCAGAGTCGAAACAAACATGA
    
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Clone variation with respect to NM_017798.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_017798 unedited
GTCGGCAATTTGTAATACGACTCACTATAGGGCGGCCCGCAATTCGCACGAGGCTCACC
ACCTACGGACAGCTCAGTAACGGAGACCATCATTTTATGCACGATGCTGTTTTTGGGCAG
CCTGGGGGCTGGGGAACAACATCTATCAGCACAGGTTCAATTTTTTCCCTGAAAACCTT
CGGTTCTCAGCATGGGGGACAAGTGGGTCTCAAGGTGAGCAGACCCAGAGCTCCGCGTAT
GGGAGCAGCTACACCTACCCCGGAGCTCCCTGGGTGGCACGGTGGTTGATGGGCAGCCA
GGCTTTCACAGCGACACCCTCAGCAAGGCCCGGGATGAACAGCCTGGAGCAGGGCATG
GTTGGCCTGAAGATTGGGGACGTCAGCTCCTCCGCCGTCAAGACGGTGGGCTCTGTCGTC
AGCAGCGTGGCACTGACTGGTGTCTTTTGGCAACGGTGGGACAAATGTGAACATGCCA
GTTTCAAAGCCGACCTCGTGGGCTGCCATTGCCAGCAAGCCTGCAAAACCACAGCCTAAA
ATGAAAACAAAGAGCGGGCCTGTCATGGGGGGTGGGCTGCCCCCTCCACCCATAAAGCAT
AACATGGACATTGGCACCTGNGATAACAAGGGGCTGTGNCCGAAGCCCCAGTCCCCAG
CAGGCACCCTCTCCACAGGCTGCCCCACAGCCCCAGCAGGTGGCTCAGCCTCTCCAGCA
CAGCCCCAGCTNTGGCTCAACCGCAGTATCAGAGCCCTCAGCAGCCACCCAGACCGCT
GGGTTGCCCCACGCCACAGAACCGCGCTTTGGGCAGAGCGGAGGGGCCTGCAGCGATAG
CAACTCTCCTGGGAACGTCCAGCCTAATTCTGCCCCAGCGTCGATCCCACCCCGTCTTG
AAAACTGAAGCTGCTC
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_017798 unedited GCAACTTCCAGGTCCAGGNAAGCACTGGGGAGGGTACAGGGATGCCACCCGGGATC TGTTTCAGGAAACAGCTATGACCGCGGCCCAATCTAGAGTCGAGTTTTTTTTTTTTTTT TTGCTAAATAGTATTGTTTATTAAGGCTTGTATTCTCCTAGAGGAAAAACCAATGTCGT CCAGGACTCCATTACAGCAGTAACAGTTCAGAGGAAGTACACGCTCTAAATAACAAGTCT AATGATACAGCTGAAACGTTAACTCAGAGGGTCTTTTGGAGCAAGTAGTTTTCAAAAAGC GTCTGCTCTCTAGGACGGTAAGGATCCTCTACAAGGGCACGTGCAGATCCAGGCGCTGGA GGTTCAGGCATGGGCACCATTTTCATGCTTCAACTCAAACCTCCAGGTGGTAGTGAGCTGN NNTGGCCCTCATTCCACAAAACATGACAGCAAATTCATCTTCTAAAAAAGTTTTGTTTT GTTTTTACCCATTCAACAGGAAAAAAATTAGACACACACGATGAAATTTACAACCGCA GCATCATCCATCACACTGTCTGTACTACCAGATCCTACACTTAAAGCTCAGCATTATTGG TATAAAAACCTTAAGACGGCATTAGAATTCTTAAGAAAAGGTGAAAAATTTAAAAAGATGT GCAAACACAAAGATGCCCGACCTGAACCAACCTAAAGCCCTTCCAGTNTCTCCACATC ATGGCCCCACAGCAGNNNACCATCGGACACCANAACAGGAGGGACCGGTGGCTGTTCAN GGGCAACAGATCTGGAAGAAAGATTTTCAAAAAAANAGGGTCTGCCAATTGAAAAT TAAAGTATTCTGCTACAGAAAATAAGGNGAATTTANCCTTTTAACGGTACCGTATATATA TGACAATTCGAGACANAATCTTTTC
Restriction Sites:	NotI-NotI
ACCN:	NM_017798
Insert Size:	9440 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	NM_017798.2 , NP_060268.2
RefSeq Size:	3265 bp
RefSeq ORF:	1680 bp
Locus ID:	54915
UniProt ID:	Q9BYJ9
Cytogenetics:	20q13.33

Gene Summary:

Specifically recognizes and binds N6-methyladenosine (m6A)-containing mRNAs, and promotes mRNA translation efficiency (PubMed:24284625, PubMed:26046440, PubMed:26318451). 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 (PubMed:24284625). Acts as a regulator of mRNA translation efficiency: promotes ribosome loading to m6A-containing mRNAs and interacts with translation initiation factors eIF3 (EIF3A or EIF3B) to facilitate translation initiation (PubMed:26046440). Required to facilitate learning and memory formation in the hippocampus by enhancing protein synthesis upon neuronal stimulation: in response to neuronal stimulation, binds to m6A-containing neuronal mRNAs, promoting their translation, thereby contributing to learning and memory (By similarity). Acts as a regulator of axon guidance by binding to m6A-containing ROBO3 transcripts, thereby promoting their translation (By similarity). Acts as a negative regulator of antigen cross-presentation in myeloid dendritic cells (By similarity). Acts by binding and promoting translation of m6A-containing transcripts encoding proteins involved in lysosomal degradation and phagosome maturation, leading to increased antigen degradation in myeloid dendritic cells (By similarity). In the context of tumorigenesis, negative regulation of antigen cross-presentation limits the anti-tumor response by reducing efficiency of tumor-antigen cross-presentation (By similarity).[UniProtKB/Swiss-Prot Function]