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Product datasheet for SC318191

YTHDC1 (NM_133370) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	YTHDC1 (NM_133370) Human Untagged Clone
Tag:	Tag Free
Symbol:	YTHDC1
Synonyms:	YT521; YT521-B
Vector:	pCMV6 series

View online »

Fully Sequenced ORF:

>NCBI ORF sequence for NM_133370, the custom clone sequence may differ by one or more nucleotides

ATGGCGGCTGACAGTCGGGAGGAGAAAGATGGAGAACTTAATGTTCTGGATGATATTTTA
ACTGAAGTACCAGAACAAGATGATGAACTGTATAATCCAGAGAGTGAACAAGATAAAAAT
GAGAAAAAGGGATCAAAAAGAAAAAGTGATCGAATGGAATCTACTGATACCAAACGACAA
AAGCCTTCTGTCCATTCAAGACAACTGGTTTCTAAGCCACTGAGCTCATCTGTTAGCAAT
AACAAAAGAATAGTTAGTACAAAAGGAAAGTCAGCCACAGAGTATAAAAATGAGGAATAT
CAAAGATCTGAAAGAAACAAGCGTCTAGATGCTGATCGGAAAATTCGTCTATCAAGTAGT
GCCTCCAGAGAACCTTATAAGAATCAACCTGAAAAAACCTGTGTCCGGAAAAGGGATCCT
GAAAGGAGGGCCAAATCTCCTACGCCAGATGGTTCTGAGAGAATTGGGCTTGAAGTGGAT
AGACGTGCAAGCAGATCCAGCCAGTCTTCTAAGGAAGAAGTGAACTCTGAAGAATATGGC
TCTGACCATGAGACTGGCAGCAGTGGTTCTTCTGATGAGCAAGGGAACAACACTGAGAAT
GAGGAGGAAGGAGTGGAAGAAGATGTGGAGGAAGATGAAGAAGTAGAAGAAGATGCAGAA
GAAGATGAAGAGGTGGATGAAGATGGAGAGGAGGAGGAGGAAGAGGAGGAGGAGGAAGAG
GAGGAGGAGGAGGAGGAAGAAGAAGAATATGAACAGGATGAGAGAGACCAGAAAGAGGAG
GGAAATGATTATGACACTCGAAGTGAGGCCAGTGACTCTGGTTCTGAATCTGTTTCCTTC
ACAGATGGGTCTGTCAGATCTGGTTCAGGCACAGATGGATCAGATGAGAAAAAGAAGGAA
AGGAAGAGAGCTAGAGGCATATCTCCAATTGTTTTTGATAGAAGTGGAAGCTCTGCATCA
GAGTCATATGCAGATCAAACCAGTAAACTCAAATATGTGCTTCAAGATGCAAGATTTTTC
CTCATAAAGAGTAACAACCATGAGAATGTGTCTCTTGCCAAAGCGAAGGGTGTATGGTCC
ACGCTCCCTGTAAATGAGAAGAAATTAAATCTTGCATTTAGATCTGCAAGGAGTGTTATC
TTAATATTTTCTGTCAGAGAGAGTGGAAAATTTCAAGGGTTTGCAAGACTTTCTTCAGAA
TCACATCACGGAGGATCTCCTATACACTGGGTGCTTCCAGCAGGAATGAGTGCTAAAATG
CTGGGAGGTGTCTTTAAAATTGACTGGATTTGCAGGCGTGAATTACCCTTCACTAAGTCG
GCTCATCTCACCAATCCTTGGAATGAACATAAACCAGTAAAGATCGGACGTGATGGACAG
GAAATTGAACTTGAATGTGGAACCCAGCTTTGTCTTCTGTTTCCCCCCGATGAAAGTATT
GACTTGTATCAGGTCATTCATAAAATGCGTCACAAGAGAAGAATGCATTCTCAGCCCCGA
TCACGAGGACGTCCATCCCGTCGAGAACCAGTCCGGGATGTGGGAAGGCGTCGACCAGAA
GATTATGATATTCATAACAGCAGAAAGAAACCAAGGATTGACTATCCCCCTGAGTTTCAC
CAGAGACCAGGGTATTTAAAGGATCCACGATACCAGGAAGTGGACAGACGATTTTCAGGA
GTTCGCCGAGATGTGTTTTTAAATGGGTCCTACAATGATTATGTGAGGGAATTTCATAAC
ATGGGACCACCACCACCTTGGCAAGGAATGCCCCCTTACCCAGGAATGGAACAACCTCCA
CACCATCCTTACTATCAGCACCATGCTCCACCTCCTCAAGCTCATCCCCCTTACTCAGGA
CATCATCCAGTACCACATGAAGCAAGATACAGAGATAAACGAGTACATGATTATGATATG
AGGGTGGATGATTTCCTTCGTCGCACACAAGCTGTTGTCAGTGGCCGGAGAAGTAGACCC
CGTGAAAGAGACCGGGAACGAGAGCGAGACCGCCCTAGAGATAACAGACGAGACAGAGAG
CGAGATAGAGGACGTGATAGAGAAAGAGAAAGAGAGCGATTATGTGATCGAGACAGAGAC
CGAGGGGAGAGAGGTCGATATAGAAGA

Restriction Sites: Please inquire

ACCN: NM_133370

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).

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_133370.2, NP_588611.2
RefSeq Size:	6195 bp
RefSeq ORF:	2130 bp
Locus ID:	91746
UniProt ID:	Q96MU7
Cytogenetics:	4q13.2
Domains:	YTH

Gene Summary:

Regulator of alternative splicing that specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs (PubMed:26318451, PubMed:26876937, PubMed:25242552, PubMed:28984244). 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:26318451, PubMed:25242552). Acts as a key regulator of exon-inclusion or exon-skipping during alternative splicing via interaction with mRNA splicing factors SRSF3 and SRSF10 (PubMed:26876937). Specifically binds m6A-containing mRNAs and promotes recruitment of SRSF3 to its mRNA-binding elements adjacent to m6A sites, leading to exon-inclusion during alternative splicing (PubMed:26876937). In contrast, interaction with SRSF3 prevents interaction with SRSF10, a splicing factor that promotes exon skipping: this prevents SRSF10 from binding to its mRNA-binding sites close to m6A-containing regions, leading to inhibit exon skipping during alternative splicing (PubMed:26876937). May also regulate alternative splice site selection (PubMed:20167602). Also involved in nuclear export of m6A-containing mRNAs via interaction with SRSF3: interaction with SRSF3 facilitates m6A-containing mRNA-binding to both SRSF3 and NXF1, promoting mRNA nuclear export (PubMed:28984244). Also recognizes and binds m6A on other RNA molecules (PubMed:27602518). Involved in random X inactivation mediated by Xist RNA: recognizes and binds m6A-containing Xist and promotes transcription repression activity of Xist (PubMed:27602518). Involved in S-adenosyl-L-methionine homeostasis by regulating expression of MAT2A transcripts, probably by binding m6A-containing MAT2A mRNAs (By similarity).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.
Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.