

## Product datasheet for **MC224492**

### Ythdc2 (NM\_001163013) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ythdc2 (NM\_001163013) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Ythdc2  
**Synonyms:** 3010002F02Rik; BC037178  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224492 representing NM\_001163013  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCCAGGCCGAGCAGCGTCTCGCCGCTCCGCCGCTCCTAGCGGAGGCGGCACGGGCGCGGTGGAG  
 GTGGCAGTGGCGGCGCGGTGGCGGTGGCGGCGGCCAGCTTCGTGTGGTCTCGAGGCGGTGGCCG  
 GGCCAAGGGCCTCAAAGACATTCGTATCGACGAGGAGTGAAGATCGCCGCAACATCGCTCTGGAGCGC  
 TTCGCTACGGTGACCAGAGAGAAATGGAATCCCTTCTCTTTGACCAGTACGGAAGAGCCTTTATTC  
 ACCGACTAAGTCAATCTCTGGTTTAGTTTCTAAAAGTAAAGGAAAGGGAGCAAATAGATACCTAACTGT  
 GAAGAAGAAAGATGGATCAGAAACAGCTCATGCAATGATGACCTGTAATTTGACTCATAACAAAAACAT  
 GCTGTTAGGAGCCTAATTCAGAGATTTCTGTCAACCAATAAAGAAGTACTGAACTCCTACCTAAAAACAG  
 AAAGAGGAAATGTGTTTGCAGTTGAAGCTGAAAACCGAGAAATGAGCAAGACAAGCGGGCGACTCAACAA  
 TGGCATTCTCAAGTTCCTGTGAAAAGGGGAGAGTCTGAATTTGACTCATTACGGCAGTCTTTACCAGTT  
 TTTGAGAAACAAGAAGAAATGTTAAAAATAATTAAGGAAAATAAGTGTGTTTATAGTAGGAGAAACTG  
 GGCTCGAAAGACCACACAGATTCCTCAGTTCCTGTTAGATGATTGCTTTAAAAATGGCATCCCTTGCCG  
 AATTTTTGACTCAACCAAGACGACTAGCAGCGATTGCTGTGGCTGAAAGAGTTGCTGCAGAGAGAAGA  
 GAAAGAATTGGTCAAACAATTGGTTATCAGATCCGATTAGAAAGCAGGGTTTCGCCAAAGACACTTCTGA  
 CATTTTGCACAAATGGGGTATTGCTTCGTACATTGATGGCAGGTGATAGCACATTGTCAACTGTGACCCA  
 TGTTATTGTGGATGAAGTGCATGAAAGGGATCGATTCAAGTATTTTGGCTTACTAAGTTAAGAGATTTG  
 TTGCAAAAGCACCAACTTTGAACTAATTTCTTCGAGTGTGCCTTGGATGTGAACCTCTTCATAAGAT  
 ATTTTGAAGTTGTCCAGTGATATATACAGGGAAGACCATTTGAAGTAAAAGAAATGTTTCTGGAAGA  
 TATTTAAGAAGTACAGGATATACCAACAAAGAAATGTTAAAGTACAAAAGGAAAAGCAACGAGAGGAG  
 AAACAACAGACCACCTCACAGAGTGGTACTCAGCTCAAGAGAATACCTCAAGCCTGAGTCTCAGAGGC  
 AGAGAGCTGTTGCTAGTGTCTGAAGAGTATGACTTATTGGATGATGGAGGTGATGCTGTCTTCAGTCA  
 GCTGACAGAAAAAGATGTGAATTCCTTGAACCATGGTTAATCAAGGAGATGGATGCCTGCCTTTCTGAC  
 ATATGGCTGCATAAAGATGTTGATGCTTTTGTCTCAGGCTTTTCATCTTATTTAACTGAAAATGTTAGTG



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TTGATTATAGGCATAGTGAGACCAGTGCAACAGCTCTGATGGTTGCTGCAGGACGGGGCTTTACGAGCCA  
 AGTAGAGCAGTTAATTAGTATGGGAGCCAATGTCCACAGTAAAGCATCAAATGGCTGGATGGCTTTAGAT  
 TGGGCTAAGCACTTTGGACAGACTGAAATTGTGGATCTTCTAGAATCTTACAGTGCTTCATTGGAATTTG  
 GAAATCTAGATGAAAGTTCCTTGGTTTCCAGACAAATGGGAATGACCTCAGTGCAGAAGACAGAGAGCTGT  
 GAAAGCTTACCATCATAGTTTTGATGATGAGAAAGTAGACTTGGATTTGATCATGCATCTCCTATAAAT  
 ATCTGCCATAGCTGTGCTGGTGAATTAATTTTTCTACCTGGATATGATGAAATTTGTTGGTTGA  
 GGGATCGTATCCTCTTTGATGACCAAGCGTTTGTGACAATAACACATAGGTATCAAGTCTTTATGGTTCA  
 TTCAAATATGCAGACATCTGATCAAAAGAAGGTATTAATAAATCCACCTGCAGGTGCCGAAAAAATATC  
 CTTTCCACCAATATTGCTGAGACGAGCATCACTGTCAATGATGTTGTGTTTATTGATTCTGGTAAGG  
 TGAAGAGAAATCCTTTGATGCACTGAATTTGTACAATGTTAAAAATGGTATGGATTTCCAAAGCTAG  
 TGCAATACAGCGCAAAGGCAGAGCGGGACGGTGTAGACCTGGAATTTGTTCCGTCTGTTTAGTAGACTT  
 CGATTTCCAGAACATGCTGGAATTTCCAGACGCCAGAACTCTTGAGAATGCCATTGCAGGAATTTGTTTAC  
 ATACCAAGCTGTAGCCCAGTTAACTGCACCATTGCCGACTTCCTTATGAAAGCCCTGAACCGCTCC  
 AGCTTTAATTGTGAGAAATGCTGTGCAGATGCTTAAGACAATAGATGCAATGGATGCATGGGAAGATCTG  
 ACTGAACTTGGGTATCATTGGCTGATTTGCCAGTAGAACCGCATCTTGGGAAAAATGGTCTGTGTGCAG  
 TGGTTTTGAAGTGTCTGGACCCATCCTTACAATTCCTGCACGCTCGCTTACCTGACCCCTTTTGTCT  
 GCCTACCCAGGCCTCTCAGAAACGGGCAGCTATGCTTTGTAGGAAACGCTTCACTGCAGGGACTTTCAGT  
 GACCACATGGCACTTCTGAGAGCATTTCAGGCATGGCAGAAAGCAGGAAGTATGGGTGGGAGCGAGCCT  
 TTTGTGAAAAGAAATTTCTTTCACAAGCTACTATGGAAATCATTATAGGCATGAGAACACAGTTGCTTGG  
 TCAGCTTAGAGCATCAGGTTTTGTAGAGCAGGAGGTGGTGGTGACATTCGAGATGTTAATAACAACTCC  
 GAGAACTGGGCTGTTGTTAAAGTGCATTGGTAGCAGGCATGTATCCTAATTTAGTCCACGTGGACAGAG  
 AGAATGTAATATTGACAGGGCCAAAGGAAAAGAAAGTACGCTTTCATCCCACTTCAGTTCTCAGTCAACC  
 TCAATACAAAAAGATTCCTCCCGCAATGGTCAAGTGCAGCGATTGAGCATTGCCCACAGATTTGGTTA  
 ATTTATGATGAAATGACCAGAGCCCATCGAATTGCTAATATCAGATGTTGTTGAGCAGTGACACCTGTTA  
 CTGTCTGGTGTCTGTGGACCAGCAAGACTGGCAAGTAAAGCTCTTCAGGAACCTTCATCCTTTAGAGC  
 GGATGGTATTCCCAATGACAGCAGTGACAGTGAGATGGAAGACAGAATACTGCAATTTGGCTGCTTTG  
 AAGCTTGATGAATGGCTTAACTTCAAAGTAGAGCCAGAGGCTGCCAGTTTATTGCTACAGCTCAGACAGA  
 AGTGGCATAGTTTGTTCAGCCGAATGAGAGCGCCATCTAACCTTGGTCTCAAGTGCATGAAGCTAC  
 CATACGAGCAATTATAGCTGTTTAAAGCACTGAAGAACAGTCTGCAGGTTTACAGCAGCCATCTGGAATT  
 GGCCAGCGCCAAAGACCCATGTCTCAGAAGAATTCCTTTGGCTTCATCTTGGAGATCCAATAATAGTA  
 GAAAAAGTACAGCTGACTGAGTTTGGGATGGATCTACTACTGGAGAAAGAGTACTGATGAAATCTCC  
 ATCTCCAGCCTTACATCCACCTCAGAAGTACAAAGATAGAGGAATTTTACATCCTAAGCGGAGCACCGAT  
 GACCGGTCCGATCAATCATCTGTGAAATCCACAGACAGCAGCAGTTACCCAAGTCCTTGTGCCAGCCCT  
 CTCTCCATCCTCAGGAAGGGATCAAAATCTCCTTCCACCAAGACCAAACATGCCTATTCTGTTACTTCAT  
 AATGAAGAGTAGCAATCTGAGAAACCTTGAATTTCTCAACAGAAGGGTATCTGGTCTACAACCCCTAGT  
 AATGAGCGGAAGCTAAATCGAGCGTTTTGGGAGAGCAGCATGGTTTACTTGGTATTTTCTGTTCAAGGAT  
 CTGGACATTTCCAGGGATTTCTAGGATGTCTTCTGAGATAGGAAGGGAGAAGAGCCAGGACTGGGGTC  
 AGCTGGACTAGGTGGAGTATTTAAAGTGGAGTGGATACGCAAAGAAAGCCTTCCCTTTGAGTTTGCACAC  
 CATTTACTCAATCCTTGAACGACAACAAGAAAGTACAGATAAGCAGAGATGGGCAGGAGCTAGAACCCTC  
 AGGTTGGGAACAGTTGCTCCAGTTATGGGAACGCCTTCCATTGGGAGAAAAACAACCTTCTGATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
 ACCN: NM\_001163013  
 Insert Size: 4338 bp

<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001163013.1</a></u> , <u><a href="#">NP_001156485.1</a></u>
<b>RefSeq Size:</b>	6299 bp
<b>RefSeq ORF:</b>	4338 bp
<b>Locus ID:</b>	240255
<b>UniProt ID:</b>	<u><a href="#">B2RR83</a></u>
<b>Cytogenetics:</b>	18 B3
<b>Gene Summary:</b>	3'-5' RNA helicase that plays a key role in the male and female germline by promoting transition from mitotic to meiotic divisions in stem cells (PubMed:28380054, PubMed:28809393, PubMed:29087293, PubMed:29033321, PubMed:29360036). Specifically recognizes and binds N6-methyladenosine (m6A)-containing RNAs, a modification present at internal sites of mRNAs and some non-coding RNAs that plays a role in the efficiency of RNA processing and stability (PubMed:29360036). Essential for ensuring a successful progression of the meiotic program in the germline by regulating the level of m6A-containing RNAs (PubMed:29033321). Acts by binding and promoting degradation of m6A-containing mRNAs: the 3'-5' RNA helicase activity is required for this process and RNA degradation may be mediated by XRN1 exoribonuclease (PubMed:29033321). Required for both spermatogenesis and oogenesis (PubMed:28809393, PubMed:29033321).[UniProtKB/Swiss-Prot Function]