

## Product datasheet for **RC238781**

### MYH (MUTYH) (NM\_001293190) Human Tagged ORF Clone

#### Product data:

|                    |   |
|--------------------|---|
| Product Type:      | Expression Plasmids                               |
| Product Name:      | MYH (MUTYH) (NM_001293190) Human Tagged ORF Clone |
| Tag:               | Myc-DDK   |
| Symbol:            | MUTYH   |
| Synonyms:          | MYH   |
| Vector:            | pCMV6-Entry (PS100001)                            |
| E. coli Selection: | Kanamycin (25 ug/mL)                              |
| Cell Selection:    | Neomycin  |



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**ORF Nucleotide Sequence:**

>RC238781 representing NM\_001293190  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACACCGCTCGTCTCCCGCCTGAGTCGTCTGTGGCCATCATGAGGAAGCCACGAGCAGCCGTGGGAA  
 GTGGTCACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAGAAGCATGCTAAGAACAACAGTCAGGCCAA  
 GCCTTCTGCCTGTGATGCAGGCCTGGCCAGGCAGCCGGAAGAGGTGGTATTGCAGGCCTCTGTCTCTCA  
 TACCATCTATTACAGACGTAGCTGAAGTCACAGCCTTCCGAGGGAGCCTGCTAAGCTGGTACGACCAAG  
 AGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGAGATGGACCTGGACAGCGGGCATATGCTGT  
 GTGGGTCTCAGAGGTATGCTGCAGCAGACCCAGGTTGCCACTGTGATCAACTACTATACCGGATGGATG  
 CAGAAGTGGCCTAACTGCAGGACCTGGCCAGTCTTCCCTGGAGGAGGTGAATCAACTCTGGGCTGGCC  
 TGGGCTACTATTCTCGTGGCCGGCGGCTGCAGGAGGGAGCTCGGAAGGTGGTAGAGGAGCTAGGGGGCCA  
 CATGCCACGTACAGCAGAGACCTGCAGCAGCTCTGCCTGGCGTGGGGCGCTACACAGCTGGGGCCATT  
 GCCTCTATCGCCTTTGGCCAGGCAACCGGTGTGGTGGATGGCAACGTAGCACGGGTGCTGTGCCGTGTC  
 GAGCCATTGGTGTGATCCCAGCAGCACCTTGTTTCCCAGCAGCTCTGGGGTCTAGCCCAGCAGCTGGT  
 GGACCCAGCCCGCCAGGAGATTTCAACCAAGCAGCCATGGAGCTAGGGGCCACAGTGTGTACCCCACAG  
 CGCCACTGTGCAGCCAGTGCCTGTGGAGAGCCTGTGCCGGGCACGCCAGAGAGTGGAGCAGGAACAGC  
 TCTTAGCCTCAGGGAGCCTGTGGGCAGTCTGACGTGGAGGAGTGTGCTCCCAACTGGACAGTGCCA  
 CCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCTGGGAGTGGTCAACTCCCCAGAAAGGCCAGC  
 CGCAAGCCCCCAGGGAGGAGAGCTCTGCCACCTGTGTTCTGGAACAGCCTGGGGCCCTTGGGGCCAAA  
 TTCTGCTGGTGCAGAGGCCAACTCAGGTCGTGCTGGCAGGACTGTGGGAGTCCCGTCCGTGGGCGG  
 GCCCTCAGAGCAGCTTCAGCGCAAGGCCCTGCTGCAGGAACTACAGCGTTGGGCTGGGCCCTCCCAGCC  
 ACGCACCTCCGGCACCTTGGGGAGTGTCCACACCTTCTCTCACATCAAGCTGACATATCAAGTATATG  
 GGCTGGCCTTGAAGGGCAGACCCAGTACCACCGTACCACCAGGTGCTCGCTGGCTGACGCAGGAGGA  
 ATTTACACCCGACGTGTTTCCACCGCCATGAAAAAGTGTTCGCTGTGTATCAGGGCCAACAGCCAGGG  
 ACCTGTATGGGTTCCAAAAGTCCAGGTGCTCTCCGTGCAGTCGAAAAAGCCCGCATGGGCCAGC  
 AAGTCTGGATAATTTCTTTCGGTCTCACATCTCCACTGATGCACACAGCCTCAACAGTGCAGCCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238781 representing NM\_001293190  
 Red=Cloning site Green=Tags(s)

MTPLVSRLSRLWAIMRKPRAAVGSGHRKQAASQEGRQKHAKNNSQAKPSACDAGLARQPEEVLQASVSS  
 YHLFRDVAEVTAFRGLLSWYDQEKRDLPWRRRAEDEMDLDRRAYAVWVSEVMLQQTQVATVINYYTGWM  
 QKWPTLQDLASASLEEVLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLPGVGRYTAGAI  
 ASIAFGQATGVVDGNVARVLCRVRAIGADPSSTLVSQQLWGLAQQLVDPARPGDFNQAAAMELGATVCTPQ  
 RPLCSQCPVESLRCRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTLGVVNFPRKAS  
 RKPPREESSATCVLEQPGALGAQILLVQRPNSGLLAGLWEFSPVTWEPSEQLQRKALLQELQRWAGPLPA  
 THLRHLGEVVHTFSHIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHTAAVSTAMKKVFRVYQQQPG  
 TCMGSKRSQVSSPCSRKKPRMQQVLDNFFRSHISTDAHSLNSAAQ

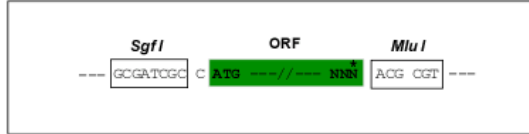
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

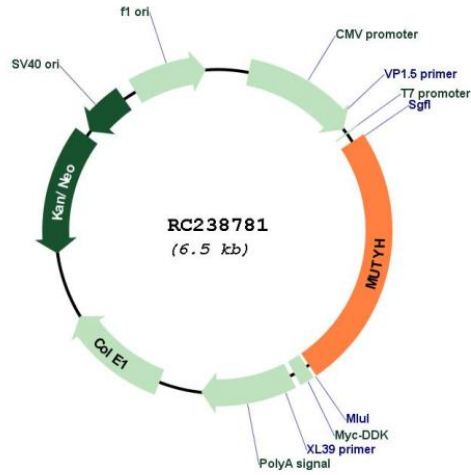
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



|                               |  |
|-------------------------------|--|
| <b>ACCN:</b>                  | NM_001293190   |
| <b>ORF Size:</b>              | 1608 bp  |
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>   |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| <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>                | <a href="#">NM_001293190.1</a> , <a href="#">NP_001280119.1</a>  |
| <b>RefSeq Size:</b>           | 1906 bp  |
| <b>RefSeq ORF:</b>            | 1611 bp  |
| <b>Locus ID:</b>              | 4595   |
| <b>UniProt ID:</b>            | <a href="#">Q9UIF7</a>   |
| <b>Cytogenetics:</b>          | 1p34.1   |
| <b>Protein Families:</b>      | Druggable Genome, Stem cell - Pluripotency   |
| <b>Protein Pathways:</b>      | Base excision repair   |
| <b>MW:</b>                    | 59.6 kDa   |
| <b>Gene Summary:</b>          | This gene encodes a DNA glycosylase involved in oxidative DNA damage repair. The enzyme excises adenine bases from the DNA backbone at sites where adenine is inappropriately paired with guanine, cytosine, or 8-oxo-7,8-dihydroguanine, a major oxidatively damaged DNA lesion. The protein is localized to the nucleus and mitochondria. This gene product is thought to play a role in signaling apoptosis by the introduction of single-strand breaks following oxidative damage. Mutations in this gene result in heritable predisposition to colorectal cancer, termed MUTYH-associated polyposis (MAP). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2017] |