

Product datasheet for **RG238746**

MYH (MUTYH) (NM_001293191) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYH (MUTYH) (NM_001293191) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYH
Synonyms:	MYH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238746 representing NM_001293191.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGAGGAAGCCACGAGCAGCCGTGGGAAGTGGTCACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAG
AAGCATGCTAAGAACAACAGTCAGGCCAAGCCTTCTGCCTGTGATGGGATGATTGCTGAGTGCCTGGG
GCCCCAGCAGGCCTGGCCAGGCAGCCGGAAGAGGTGGTATTGCAGGCCTCTGTCTCCTCATACCATCTA
TTCAGAGACGTAGCTGAAGTCACAGCCTTCCGAGGGAGCCTGCTAAGCTGGTACGACCAAGAGAAAACGG
GACCTACCATGGAGAAGACGGGCAGAAGATGAGATGGACCTGGACAGCGGGCATATGCTGTGTGGGTC
TCAGAGGTGATGCTGCAGCAGACCCAGGTTGCCACTGTGATCACTACTATACCGGATGGATGCAGAAG
TGGCTACACTGCAGGACCTGGCCAGTGCCTCCCTGGAGGAGTGAATCAACTCTGGGCTGGCCTGGGC
TACTATTCTCGTGGCCGGCGCTGCAGGAGGGAGCTCGGAAGTGGTAGAGGAGCTAGGGGGCCACATG
CCAGTACAGCAGAGACCCTGCAGCAGCTCCTGCCTGGCGTGGGCGCTACACAGCTGGGCCATTGCC
TCTATCGCCTTTGGCCAGCAACCGGTGTGGTGGATGGCAACGTAGCACGGGTGCTGTGCCGTGCCGA
GCCATTGGTGCTGATCCCAGCAGCACCTTGTTCACAGCAGCTCTGGGGTCTAGCCAGCAGCTGGTG
GACCCAGCCCGGCCAGGAGATTTCAACCAAGCAGCCATGGAGCTAGGGGCCACAGTGTGTACCCACAG
CGCCACTGTGCAGCCAGTGCCTGTGGAGAGCCTGTGCCGGGCACGCCAGAGAGTGAGCAGGAACAG
CTCTTAGCCTCAGGGAGCCTGTCCGGCAGTCTGACGTGGAGGAGTGTGCTCCCAACTGGACAGTGC
CACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCTGGGAGTGGTCAACTCCCCAGAAAGGCC
AGCCGCAAGCCCCCAGGGAGGAGACTCTGCCACCTGTGTTCTGGAACAGCCTGGGGCCCTTGGGGCC
CAAATCTGCTGGTGCAGAGGCCCAACTCAGGTCCTGCTGGCAGGACTGTGGGAGTTCCTGTCGTGACC
TGGGAGCCCTCAGAGCAGCTTCAGCGCAAGCCCTGCTGCAGGAACACACGCTTGGGCTGGGCCCTC
CCAGCCACGCACCTCCGGCACCTTGGGGAGGTTGTCCACACCTTCTCTACATCAAGCTGACATATCAA
GTATATGGGCTGGCCTTGGAAAGGCAGACCCAGTGACCACCGTACCACCAGGTGCTCGTGCTGACG
CAGGAGGAATTTACACCCGAGCTGTTTCCACCCCATGAAAAAGGTTTTCCGTGTGATCAGGGCCAA
CAGCCAGGGACCTGTATGGGTTCCAAAAGTCCCAGGTGCTCTCCGTGCAGTCGGA AAAAGCCCCGC
ATGGGCCAGCAAGTCTGGATAATTTCTTTCGGTCTCACATCTCCACTGATGCACACAGCCTCAACAGT
GCAGCCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238746
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MRKPRAAVGSGHRKQAASQEGRQKHAKNNSQAKPSACDGMIAECPGAPAGLARQPEEVVLQASVSSYHL
FRDVAEVTAFRGSLLSWYDQEKRDLPWRRRAEDEMDLDRRAYAVWVSEVMLQQTQVATVINYYTGWMQK
WPTLQDLASASLEEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLLPVGRYTAGAIA
SIAFGQATGVVDGNVARVLCRVRAIGADPSSTLVSQQLWGLAQQLVDPARPGDFNQAAMELGATVCTPQ
RPLCSQCPVESLRCRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTLGVVNFPRKA
SRKPPREESSATCVLEQPGALGAQILLVQRPNSGLLAGLWEPFSVTPWEPSEQLQRKALLQELQRWAGPL
PATHLRHLGEVVHTFSHIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHAAVSTAMKKVFRVYQGQ
QPGTCMGSKRSQVSSPCSRKKPRMGQQLDNFFRSHISTDAHSLNSAAQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

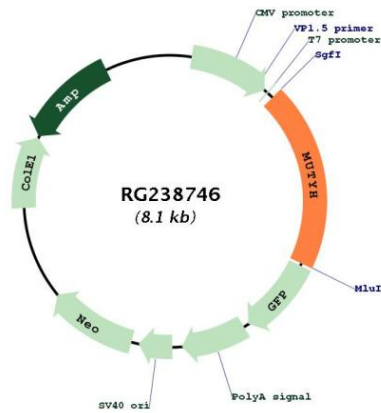
Cloning Scheme:


- ACCN:** NM_001293191
- ORF Size:** 1596 bp
- OTI Disclaimer:** 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).
- RefSeq:** [NM_001293191.1](#), [NP_001280120.1](#)
- RefSeq Size:** 1743 bp
- RefSeq ORF:** 1599 bp
- Locus ID:** 4595
- UniProt ID:** [Q9UIF7](#)
- Cytogenetics:** 1p34.1
- Protein Families:** Druggable Genome, Stem cell - Pluripotency
- Protein Pathways:** Base excision repair
- MW:** 58.9 kDa

Gene Summary:

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]

Product images:



Circular map for RG238746