

Product datasheet for **RG238781**

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:	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:

>RG238781 representing NM_001293190.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGACACCGCTCGTCTCCCGCCTGAGTCGTCTGTGGGCCATCATGAGGAAGCCACGAGCAGCCGTGGGA
AGTGGTCACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAGAAGCATGCTAAGAACAACAGTCAGGCC
AAGCCTTCTGCCTGTGATGCAGGCCTGGCCAGGCAGCCGGAAGAGGTGGTATTGCAGGCCTCTGTCTCC
TCATACCATCTATTACAGAGAGCTAGCTGAAGTACAGCCTCCGAGGGAGCCTGTAAGCTGGTACGAC
CAAGAGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGAGATGGACCTGGACAGGCAGGCATAT
GCTGTGTGGTCTCAGAGGTCATGCTGCAGCAGACCCAGGTTGCCACTGTGATCAACTACTATACCGGA
TGGATGCAGAAGTGGCTACTACTGCAGGACCTGGCCAGTCTCCCTGGAGGAGTGAATCAACTCTGG
GCTGGCCTGGGCTACTATTCTCGTGGCCGGCGGCTGCAGGAGGGAGCTCGGAAGTGGTAGAGGAGCTA
GGGGGCCACATGCCACGTACAGCAGAGACCTGCAGCAGCTCCTGCCTGGCGTGGGGCGCTACACAGCT
GGGGCCATTGCCCTATCGCCTTTGGCCAGGCAACCGGTGTGGTGGATGGCAACGTAGCAGGGTGTCTG
TGCCGTGTCCGAGCCATTGGTGTGATCCACAGCAGCACCTTGTTCACAGCAGCTCTGGGTCTAGCC
CAGCAGCTGGTGGACCCAGCCCGGCCAGGAGATTTCAACCAAGCAGCCATGGAGCTAGGGGCCACAGTG
TGTACCCACAGCGCCACTGTGCAGCCAGTGCCTGTGGAGAGCCTGTGCCGGGCACGCCAGAGAGTG
GAGCAGGAACAGCTCTTAGCCTCAGGGAGCCTGTGGGAGTCCCTGACGTGGAGGAGTGTCTCCCAAC
ACTGGACAGTGCACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCCCTGGGAGTGGTCAACTTC
CCCAGAAAGGCCAGCCGAAGCCCCCAGGGAGGAGAGCTCTGCCACCTGTGTTCTGGAACAGCCTGGG
GCCCTTGGGGCCAAATTCTGCTGGTGCAGAGGCCCAACTCAGGTCTGCTGGCAGGACTGTGGGAGTTC
CCGTCCGTGACCTGGGAGCCCTCAGAGCAGCTTACGCAGGAGCCCTGCTGCAGGAAGTACAGCCTGG
GCTGGGCCCTCCAGCCACGCACCTCCGGCACCTTGGGGAGGTTGTCCACACCTTCTCTACATCAAG
CTGACATATCAAGTATATGGGCTGGCCTTGAAGGGCAGACCCAGTACCACCGTACCACAGGTGCT
CGCTGGCTGACGCAGGAGGAATTCACACCGCAGCTGTTCCACCGCCATGAAAAAGTTTTCCGTGTG
TATCAGGGCCAACAGCCAGGACCTGTATGGGTTCCAAAAGTCCAGGTGTCTCTCCGTGCAGTCGG
AAAAAGCCCCGCATGGGCCAGCAAGTCTGGATAATTTCTTCGGTCTCACATCTCCACTGATGCACAC
AGCCTCAACAGTGCAGCCAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238781
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MTPLVSRLSRLWAIMRKPRAAVGSGHRKQAAASQEGRQKHAKNNSQAKPSACDAGLARQPEEVVLQASVS
SYHLFRDVAEVTAFRGSLLSWYDQEKRDLPWRRRAEDEMDLDRRAYAVVWSEVMLQQTQVATVINYYTG
WMQKWPTLQDLASASLEEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLPGVGRYTA
GAIASIAFGQATGVVDGNVARVLCRVRAIGADPSSLVVSQQLWGLAQQLVDPARPGDFNQAAMELGATV
CTPQRPLCSQCPVESLRCRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTLGVVNF
PRKASRPPREESSATCVLEQPGALGAQILLVQRPNSGLLAGLWEFSPVTWEPSEQLQRKALLQELQRW
AGPLPATHLRHLGEVVHTFSHIKLTQYVYGLALEGQTPVTTVPPGARWLQEEFHAAVSTAMKKVFRV
YQGQPGTCMGSKRSQVSSPCSRKKPRMQQVLDNFFRSHISTDAHSLNSAAQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

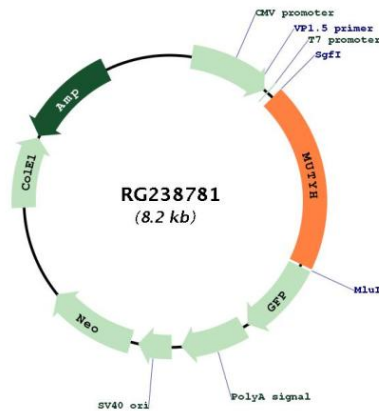
Sgfl-MluI

Cloning Scheme:


- ACCN:** NM_001293190
- ORF Size:** 1608 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_001293190.1](#), [NP_001280119.1](#)
- RefSeq Size:** 1906 bp
- RefSeq ORF:** 1611 bp
- Locus ID:** 4595
- UniProt ID:** [Q9UIF7](#)
- Cytogenetics:** 1p34.1
- Protein Families:** Druggable Genome, Stem cell - Pluripotency
- Protein Pathways:** Base excision repair
- MW:** 59.6 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 RG238781