

Product datasheet for **RG212609**

MYH (MUTYH) (NM_001048172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYH (MUTYH) (NM_001048172) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MUTYH
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:

>RG212609 representing NM_001048172
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGAAGCCACGAGCAGCCGTGGGAAGTGGTACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAGA
 AGCATGCTAAGAACAACAGTCAGGCCAAGCCTTCTGCCTGTGATGCAAGCCTGGCCAGGCAGCCGGAAGA
 GGTGGTATTGCAGGCCTCTGTCTCCTCATACCATCTATTCAGAGACGTAGCTGAAGTCACAGCCTCCGA
 GGGAGCCTGCTAAGCTGGTACGACCAAGAGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGAGA
 TGGACCTGGACAGGCGGCATATGCTGTGTGGTCTCAGAGGTCATGCTGCAGCAGACCCAGGTTGCCAC
 TGTGATCAACTACTATACCGGATGGATGCAGAAGTGGCTTACACTGCAGGACCTGGCCAGTGCTTCCCTG
 GAGGAGGTGAATCAACTCTGGGCTGGCCTGGGCTACTATTCTCGTGGCCGGCGGCTGCAGGAGGGAGCTC
 GGAAGGTGGTAGAGGAGTAGGGGGCCACATGCCACGTACAGCAGAGACCCTGCAGCAGCTCCTGCCTGG
 CGTGGGGCGCTACACAGCTGGGGCCATTGCCTCTATCGCCTTTGGCCAGGCAACCGGTGTGGTGGATGGC
 AACGTAGCACGGGTGCTGTGCCGTGTCCGAGCCATTGGTGTGATCCAGCAGCACCCCTGTTTCCAGC
 AGCTCTGGGGTCTAGCCAGCAGCTGGTGGACCCAGCCCGGCCAGGAGATTTCAACCAAGCAGCCATGGA
 GCTAGGGGCCACAGTGTGTACCCACAGCGCCACTGTGCAGCCAGTGCCTGTGGAGAGCCTGTGCCGG
 GCACGCCAGAGAGTGGAGCAGGAACAGCTTTAGCCTCAGGGAGCCTGTCCGGCAGTCTGACGTGGAGG
 AGTGTGCTCCCAACTGGACAGTGCACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCCTGGG
 AGTGGTCAACTCCCCAGAAAGGCCAGCCGCAAGCCCCCAGGGAGGAGACTCTGCCACCTGTGTTCTG
 GAACAGCCTGGGGCCCTGGGGCCAAATTCTGCTGGTGCAGAGGCCAACTCAGGTCTGCTGGCAGGAC
 TGTGGGAGTTCCCGTCCGTGACCTGGGAGCCCTCAGAGCAGCTTACGCGAAGGCCCTGTCAGGAACT
 ACAGCGTTGGGCTGGGCCCTCCAGCCACGCACCTCCGGCACCTTGGGAGGTTGTCCACACTTCTCT
 CACATCAAGCTGACATATCAAGTATATGGGCTGGCCTTGAAGGGCAGACCCAGTGACCACCGTACCAC
 CAGGTGCTCGCTGGCTGACGCAGGAGGAATTTACACCGCAGCTGTTTCCACCGCATGAAAAAGGTTTT
 CCGTGTGTATCAGGGCCAACAGCCAGGGACCTGTATGGGTTCCAAAAGGTCCAGGTGCTCTCCGTGC
 AGTCGGAAAAAGCCCGCATGGGCCAGCAAGTCTGGATAATTTCTTTCGGTCTCACATCTCCACTGATG
 CACACAGCCTCAACAGTGCAGCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG212609 representing NM_001048172
 Red=Cloning site Green=Tags(s)

MRKPRAAVSGSHRQQAASQEGRQKHAKNNSQAKPSACDAGLARQPPEEVVLQASVSSYHLFRDVAEVTAFR
 GSLLSWYDQEKRDLPWRRRAEDEMDDLDRRAYAVWVSEVMLQQTQVATVINYYTGWMQKWPQLDLASASL
 EEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLLPVGRYTAGAIASIAFGQATGVVDG
 NVARVLCRVRAIGADPSSSTLVSQQLWGLAQQLVDPARPGDFNQAAAMELGATVCTPQRPLCSQCPVESL
 CRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTLGVVNFPRKASRKPPEESSATCVL
 EQPGALGAQILLVQRPNGLLAGLWEPFSVTWEPSEQLQRKALLQELQRWAGPLPATHLRHLGEVHTFS
 HIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHAAVSTAMKKVFRVYQGGQPGTCMGSKRSQVSSPC
 SRKKPRMGQQVLDNFFRSHISTDAHSLNSAAQ

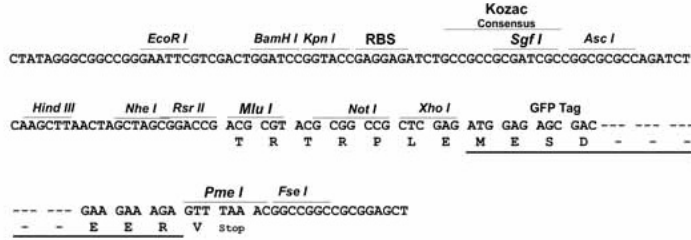
TRTRPLE - GFP Tag - V

Restriction Sites:

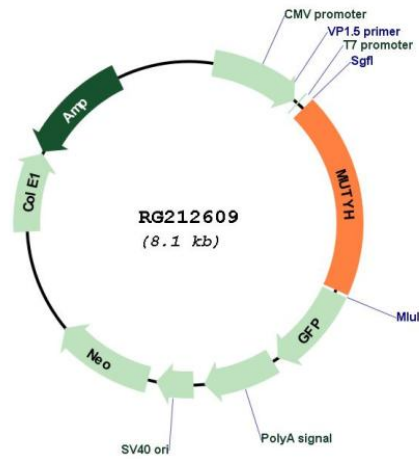
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_001048172
ORF Size:	1566 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).
Reconstitution Method:	<ol style="list-style-type: none">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_001048172.1 , NP_001041637.1
RefSeq Size:	1794 bp
RefSeq ORF:	1569 bp
Locus ID:	4595
UniProt ID:	Q9UIF7
Cytogenetics:	1p34.1
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Base excision repair
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]