

Product datasheet for **RC212609**

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:	Myc-DDK
Symbol:	MYH
Synonyms:	MYH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC212609 representing NM_001048172
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGAAGCCACGAGCAGCCGTGGGAAGTGGTACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAGA
 AGCATGCTAAGAACAACAGTCAGGCCAAGCCTTCTGCCTGTGATGCAAGCCTGGCCAGGCAGCCGGAAGA
 GGTGGTATTGCAGGCCTCTGTCTCCTCATACCATCTATTCAGAGACGTAGCTGAAGTACACAGCCTCCGA
 GGGAGCCTGCTAAGCTGGTACGACCAAGAGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGAGA
 TGGACCTGGACAGGCGGCATATGCTGTGTGGTCTCAGAGGTCATGCTGCAGCAGACCCAGGTTGCCAC
 TGTGATCAACTACTATACCGGATGGATGCAGAAGTGGCTACACTGCAGGACCTGGCCAGTGCTTCCCTG
 GAGGAGGTGAATCAACTCTGGGCTGGCCTGGGCTACTATTCTCGTGGCCGGCGGTCAGGAGGGAGCTC
 GGAAGGTGGTAGAGGAGTAGGGGGCCACATGCCACGTACAGCAGAGACCCTGCAGCAGCTCCTGCCTGG
 CGTGGGGCGCTACACAGCTGGGGCCATTGCCTCTATCGCCTTTGGCCAGGCAACCGGTGTGGTGGATGGC
 AACGTAGCACGGGTGCTGTGCCGTGTCCGAGCCATTGGTGTGATCCAGCAGCACCCCTGTTTCCAGC
 AGCTCTGGGGTCTAGCCAGCAGCTGGTGGACCCAGCCGGCCAGGAGATTTCAACCAAGCAGCCATGGA
 GCTAGGGGCCACAGTGTGTACCCACAGCGCCACTGTGCAGCCAGTGCCTGTGGAGAGCCTGTGCCGG
 GCACGCCAGAGAGTGGAGCAGGAACAGCTTTAGCCTCAGGGAGCCTGTCCGGCAGTCTGACGTGGAGG
 AGTGTGCTCCCAACTGGACAGTGCACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCCCTGGG
 AGTGGTCAACTTCCCAGAAAGGCCAGCCGCAAGCCCCCAGGGAGGAGAGCTCTGCCACCTGTGTTCTG
 GAACAGCCTGGGGCCCTGGGGCCAAATTCTGCTGGTGCAGAGGCCAACTCAGGTCTGCTGGCAGGAC
 TGTGGGAGTTCCCGTCCGTGACCTGGGAGCCCTCAGAGCAGCTTACGCGCAAGGCCCTGCTGCAGGAACT
 ACAGCGTTGGGCTGGGCCCTCCAGCCACGCACCTCCGGCACCTTGGGGAGGTTGTCCACACCTTCTCT
 CACATCAAGCTGACATATCAAGTATATGGGCTGGCCTTGAAGGGCAGACCCAGTGACCACCGTACCAC
 CAGGTGCTCGCTGGCTGACGCAGGAGGAATTTACACCGCAGCTGTTTCCACCGCATGAAAAAGGTTTT
 CCGTGTGTATCAGGGCCAACAGCCAGGGACCTGTATGGGTTCCAAAAGTCCCAGGTGCTCTCCGTG
 AGTCGGAAAAAGCCCGCATGGGCCAGCAAGTCTGGATAATTTCTTTCGGTCTCACATCTCCACTGATG
 CACACAGCCTCAACAGTGCAGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212609 representing NM_001048172
 Red=Cloning site Green=Tags(s)

MRKPRAAVSGHRKQAASQEGRQKHAKNNSQAKPSACDAGLARQPPEEVVLQASVSSYHLFRDVAEVTAFR
 GSLLSWYDQEKRDLPWRRRAEDEMDDRRAVAVVWSEVMLQQTQVATVINYYTGWMQKWPTLQDLASASL
 EEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLLPVGRYTAGAIAAFGQATGVVDG
 NVARVLCRVRAIGADPSSTLVSQQLWGLAQQLVDPARPGDFNQAAMELGATVCTPQRPLCSQCPVESLCR
 ARQRVEQEQLLASGSLSGSPDVEEAPNTGQCHLCLPPSEPWDQTLGVVNFPRKASRKPPEESSATCVL
 EQPGALGAQILLVQRPNISGLLAGLWEPFSVTWEPSEQLQRKALLQELQRWAGPLPATHLRHLGEVVHTFS
 HIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHAAVSTAMKKVFRVYQGQPGTCMGSKRISQVSSPC
 SRKKPRMGQVLDNFFRSHISTDAHSLNSAAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8065_c10.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

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:

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

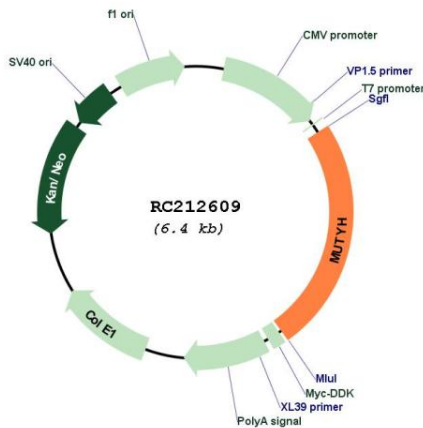
Protein Families: Druggable Genome, Stem cell - Pluripotency

Protein Pathways: Base excision repair

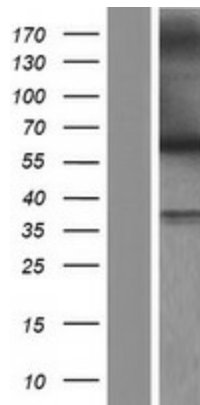
MW: 57.3 kDa

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 RC212609



Western blot validation of overexpression lysate (Cat# [LY420769]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212609 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).