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Product datasheet for RC221402

MYH (MUTYH) (NM_012222) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYH (MUTYH) (NM_012222) 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)

ORF Nucleotide Sequence:

>RC221402 representing NM_012222
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACACCGCTCGTCTCCCGCCTGAGTCGTCTGTGGGCCATCATGAGGAAGCCACGAGCAGCCGTGGGAA
GTGGTCACAGGAAGCAGGCAGCCAGCCAGGAAGGGAGGCAGAAGCATGCTAAGAACAACAGTCAGGCCAA
GCCTTCTGCCTGTGATGGGATGATTGCTGAGTGTCCTGGGGCCCCAGCAGGCCTGGCCAGGCAGCCGGAA
GAGGTGGTATTGCAGGCCTCTGTCTCCTCATACCATCTATTCAGAGACGTAGCTGAAGTCACAGCCTTCC
GAGGGAGCCTGCTAAGCTGGTACGACCAAGAGAAACGGGACCTACCATGGAGAAGACGGGCAGAAGATGA
GATGGACCTGGACAGGCGGGCATATGCTGTGTGGGTCTCAGAGGTCATGCTGCAGCAGACCCAGGTTGCC
ACTGTGATCAACTACTATACCGGATGGATGCAGAAGTGGCCTACACTGCAGGACCTGGCCAGTGCTTCCC
TGGAGGAGGTGAATCAACTCTGGGCTGGCCTGGGCTACTATTCTCGTGGCCGGCGGCTGCAGGAGGGAGC
TCGGAAGGTGGTAGAGGAGCTAGGGGGCCACATGCCACGTACAGCAGAGACCCTGCAGCAGCTCCTGCCT
GGCGTGGGGCGCTACACAGCTGGGGCCATTGCCTCTATCGCCTTTGGCCAGGCAACCGGTGTGGTGGATG
GCAACGTAGCACGGGTGCTGTGCCGTGTCCGAGCCATTGGTGCTGATCCCAGCAGCACCCTTGTTTCCCA
GCAGCTCTGGGGTCTAGCCCAGCAGCTGGTGGACCCAGCCCGGCCAGGAGATTTCAACCAAGCAGCCATG
GAGCTAGGGGCCACAGTGTGTACCCCACAGCGCCCACTGTGCAGCCAGTGCCCTGTGGAGAGCCTGTGCC
GGGCACGCCAGAGAGTGGAGCAGGAACAGCTCTTAGCCTCAGGGAGCCTGTCGGGCAGTCCTGACGTGGA
GGAGTGTGCTCCCAACACTGGACAGTGCCACCTGTGCCTGCCTCCCTCGGAGCCCTGGGACCAGACCCTG
GGAGTGGTCAACTTCCCCAGAAAGGCCAGCCGCAAGCCCCCCAGGGAGGAGAGCTCTGCCACCTGTGTTC
TGGAACAGCCTGGGGCCCTTGGGGCCCAAATTCTGCTGGTGCAGAGGCCCAACTCAGGTCTGCTGGCAGG
ACTGTGGGAGTTCCCGTCCGTGACCTGGGAGCCCTCAGAGCAGCTTCAGCGCAAGGCCCTGCTGCAGGAA
CTACAGCGTTGGGCTGGGCCCCTCCCAGCCACGCACCTCCGGCACCTTGGGGAGGTTGTCCACACCTTCT
CTCACATCAAGCTGACATATCAAGTATATGGGCTGGCCTTGGAAGGGCAGACCCCAGTGACCACCGTACC
ACCAGGTGCTCGCTGGCTGACGCAGGAGGAATTTCACACCGCAGCTGTTTCCACCGCCATGAAAAAGGTT
TTCCGTGTGTATCAGGGCCAACAGCCAGGGACCTGTATGGGTTCCAAAAGGTCCCAGGTGTCCTCTCCGT
GCAGTCGGAAAAAGCCCCGCATGGGCCAGCAAGTCCTGGATAATTTCTTTCGGTCTCACATCTCCACTGA
TGCACACAGCCTCAACAGTGCAGCCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221402 representing NM_012222
Red=Cloning site Green=Tags(s)

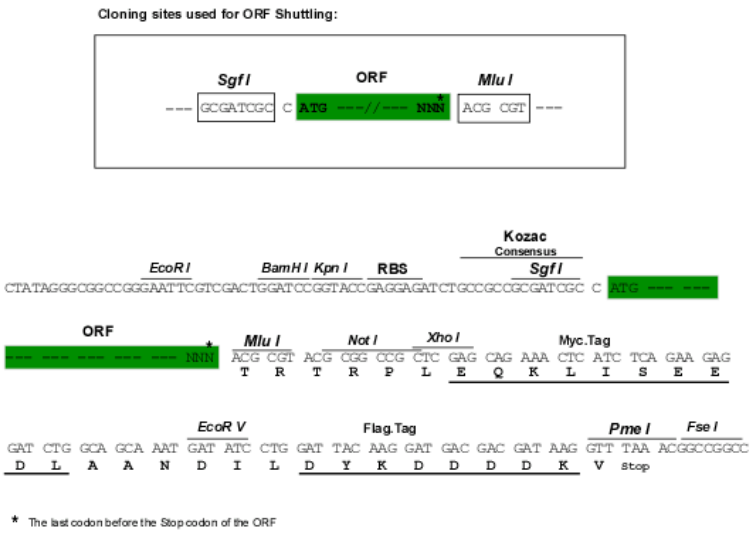
MTPLVSRLSRLWAIMRKPRAAVGSGHRKQAASQEGRQKHAKNNSQAKPSACDGMIAECPGAPAGLARQPE
EVVLQASVSSYHLFRDVAEVTAFRGSLLSWYDQEKRDLPWRRRAEDEMDLDRRAYAVWVSEVMLQQTQVA
TVINYYTGWMQKWPTLQDLASASLEEVNQLWAGLGYYSRGRRLQEGARKVVEELGGHMPRTAETLQQLLP
GVGRYTAGAIASIAFGQATGVVDGNVARVLCRVRAIGADPSSTLVSQQLWGLAQQLVDPARPGDFNQAAM
ELGATVCTPQRPLCSQCPVESLCRARQRVEQEQLLASGSLSGSPDVEECAPNTGQCHLCLPPSEPWDQTL
GVVNFPRKASRKPPREESSATCVLEQPGALGAQILLVQRPNSGLLAGLWEFPSVTWEPSEQLQRKALLQE
LQRWAGPLPATHLRHLGEVVHTFSHIKLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHTAAVSTAMKKV
FRVYQGQQPGTCMGSKRSQVSSPCSRKKPRMGQQVLDNFFRSHISTDAHSLNSAAQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6708_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012222

ORF Size: 1638 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_012222.2, NP_036354.1

RefSeq Size: 1854 bp

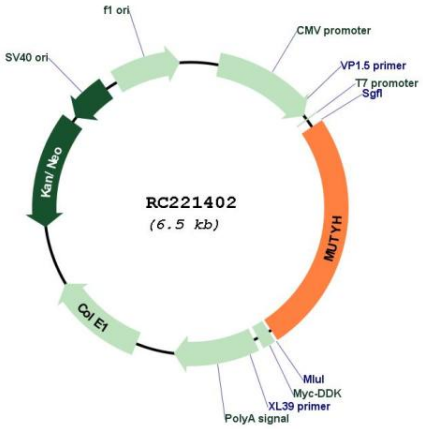
RefSeq ORF: 1641 bp

Locus ID: 4595

UniProt ID: Q9UIF7

Cytogenetics:	1p34.1
Domains:	NUDIX, HHH, ENDO3c, FES
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Base excision repair
MW:	59.9 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 RC221402