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Product datasheet for RG216158

HRC (NM_002152) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	HRC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG216158 ORF sequence, codon optimized.
Due to the complexity of NM_002152, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCCATCATAGGCCCTGGCTGCATGCATCAGTCCTCTGGGCGGGAGTGGCCAGCTTGCTGCTCCCCC
CCGCCATGACCCAGCAGCTGCGCGGAGACGGCCTTGGGTTCCGGAATCGGAATAACAGCACAGGAGTAGC
AGGCCTCAGCGAGGAAGCATCCGCAGAGCTCAGACATCATCTGCACTCACCAAGAGATCATCCAGACGAG
AATAAAGACGTTAGTACAGAGAATGGGCATCACTTCTGGAGCCACCCCGATCGAGAGAAGGAAGACGAGG
ATGTCAGCAAGGAATATGGGCACCTTCTGCCAGGCCACAGATCACAAGACCATAAGGTAGGGGACGAGGG
CGTCTCCGGGGAAGAGGTTTTTGCCGAGCACGGCGGACAGGCCAGGGGTCACCGGGGCCATGGAAGTGAA
GATACAGAAGATTCAGCCGAACATCGGCACCATCTCCCCTCTCACAGGAGCCATAGCCATCAGGACGAGG
ACGAAGACGAAGTGGTGAGCTCCGAGCATCACCATCACATTCTGCGGCACGGCCATAGGGGACATGACGG
CGAAGATGACGAAGGCGAGGAAGAAGAGGAGGAGGAGGAGGAAGAGGAAGAGGCTTCCACAGAGTATGGC
CATCAGGCACATAGGCATAGGGGGCACGGCAGCGAAGAAGACGAGGACGTGAGCGACGGGCACCACCACC
ACGGTCCCAGCCATCGCCATCAGGGTCACGAAGAGGATGACGACGACGATGACGACGACGATGACGACGA
TGACGATGACGATGTGAGCATTGAGTATCGACACCAGGCTCATCGGCACCAGGGACACGGGATTGAGGAA
GATGAAGATGTCAGCGACGGGCATCACCACAGGGACCCGAGCCATAGGCATAGGTCACACGAAGAGGACG
ACAATGACGATGACGACGTGAGTACTGAGTACGGACACCAGGCACACCGCCACCAGGATCACAGGAAGGA
AGAGGTGGAGGCCGTGTCCGGAGAACACCACCACCACGTCCCAGATCACAGGCACCAGGGCCACCGAGAC
GAGGAAGAGGATGAAGACGTGAGCACTGAGAGGTGGCACCAGGGGCCACAACACGTCCATCACGGCCTGG
TTGATGAAGAAGAAGAGGAGGAGGAAATAACCGTTCAGTTCGGACACTACGTTGCTTCTCACCAGCCTCG
CGGCCATAAGTCAGATGAAGAAGACTTTCAGGATGAGTATAAGACTGAGGTCCCTCACCATCATCATCAT
CGCGTGCCACGGGAAGAGGATGAGGAAGTCTCCGCAGAGCTCGGACATCAGGCCCCGAGCCATAGGCAAT
CCCACCAGGACGAGGAGACAGGACACGGCCAGAGGGGCAGTATAAAGGAAATGAGTCACCACCCTCCAGG
GCACACAGTGGTCAAAGACAGGAGCCACTTGCGAAAGGATGACAGTGAAGAAGAGAAAGAAAAAGAAGAA
GACCCTGGCTCTCATGAGGAAGATGACGAATCATCCGAACAGGGAGAGAAGGGTACTCACCATGGGTCAA
GAGATCAGGAAGATGAGGAAGACGAAGAAGAGGGCCACGGCCTGAGCTTGAATCAAGAGGAAGAGGAGGA
AGAGGATAAGGAGGAAGAGGAAGAGGAGGAAGATGAGGAAAGGAGGGAGGAGCGGGCTGAGGTGGGAGCC
CCACTCTCCCCAGATCACTCAGAAGAGGAGGAGGAAGAGGAAGAAGGCCTTGAGGAAGACGAACCCAGGT
TTACCATTATCCCCAACCCGCTGGACCGGAGAGAAGAGGCTGGAGGCGCATCTTCCGAGGAAGAGAGCGG
GGAGGACACAGGACCTCAGGACGCTCAAGAATATGGCAACTACCAGCCCGGCTCTCTGTGCGGCTACTGC
TCATTTTGTAACCGGTGCACCGAATGTGAGTCCTGCCACTGCGATGAAGAAAACATGGGTGAGCACTGTG
ACCAGTGTCAGCACTGCCAGTTTTGTTATCTGTGCCCTCTCGTCTGCGAAACAGTCTGCGCACCTGGGAG
CTACGTCGATTACTTCAGTAGCTCCCTGTACCAAGCCCTGGCCGACATGCTGGAGACTCCCGAGCCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

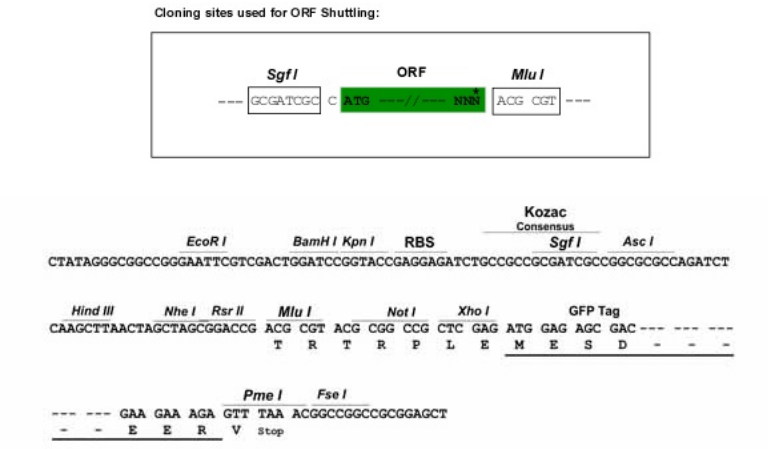
>RG216158 representing NM_002152
Red=Cloning site Green=Tags(s)

MGHHRPWLHASVLWAGVASLLLPPAMTQQLRGDGLGFRNRNNSTGVAGLSEEASAELRHHLHSPRDHPDE
NKDVSTENGHHFWSHPDREKEDEDVSKEYGHLLPGHRSQDHKVGDEGVSGEEVFAEHGGQARGHRGHGSE
DTEDSAEHRHHLPSHRSHSHQDEDEDEVVSSEHHHHILRHGHRGHDGEDDEGEEEEEEEEEEEASTEYG
HQAHRHRGHGSEEDEDVSDGHHHHGPSHRHQGHEEDDDDDDDDDDDDDDDDVSIEYRHQAHRHQGHGIEE
DEDVSDGHHHRDPSHRHRSHEEDDNDDDVSTEYGHQAHRHQDHRKEEVEAVSGEHHHHVPDHRHQGHRD
EEEDEDVSTERWHQGPQHVHHGLVDEEEEEEEITVQFGHYVASHQPRGHKSDEEDFQDEYKTEVPHHHHH
RVPREEDEEVSAELGHQAPSHRQSHQDEETGHGQRGSIKEMSHHPPGHTVVKDRSHLRKDDSEEEKEKEE
DPGSHEEDDESSEQGEKGTHHGSRDQEDEEDEEEGHGLSLNQEEEEEEDKEEEEEEEDEERREERAEVGA
PLSPDHSEEEEEEEEGLEEDEPRFTIIPNPLDRREEAGGASSEEESGEDTGPQDAQEYGNYQPGSLCGYC
SFCNRCTECESCHCDEENMGEHCDQCQHCQFCYLCPLVCETVCAPGSYVDYFSSSLYQALADMLETPEP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002152

ORF Size: 2097 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_002152.2, NP_002143.1

RefSeq Size: 2357 bp

RefSeq ORF: 2100 bp

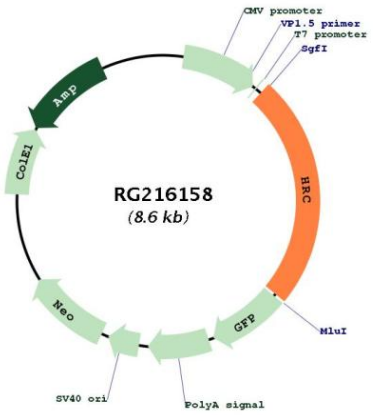
Locus ID: 3270

UniProt ID: P23327

Cytogenetics: 19q13.33

Gene Summary: This gene encodes a luminal sarcoplasmic reticulum protein identified by its ability to bind low-density lipoprotein with high affinity. The protein interacts with the cytoplasmic domain of triadin, the main transmembrane protein of the junctional sarcoplasmic reticulum (SR) of skeletal muscle. The protein functions in the regulation of releasable calcium into the SR. [provided by RefSeq, Sep 2008]

Product images:



Circular map for RG216158