

## Product datasheet for **RG210553**

### Repulsive Guidance Molecule C (HFE2) (NM\_213652) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Repulsive Guidance Molecule C (HFE2) (NM_213652) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HJV
Synonyms:	HFE2; HFE2A; JH; RGMC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210553 representing NM_213652 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATCCAGCACAACTGCTCCCGCCAGGGCCCTACAGCCCTCCCCGCCCCGGGGCCCCGCCCTTCCAG  
GCGCGGGCTCCGGCTCCCTGCCCGGACCCTTGTGACTATGAAGGCCGGTTTTCCCGGCTGCATGGTCG  
TCCCCGGGGTTCTTGCAATGCGCTTCTTCGGGGACCCCATGTGCGCAGCTTCCACCATCACTTTCAC  
ACATGCCGTGTCCAAGGAGCTTGGCCTCTACTGGATAATGACTTCCTCTTTGTTCCAAGCCACCAGCTCCC  
CCATGGCGTTGGGGCCAAACGCTACCGCCACCCGGAAGCTCACCATCATATTTAAGAACATGCAGGAATG  
CATTGATCAGAAGGTGTATCAGGCTGAGGTGGATAATCTTCTGTAGCCTTTGAAGATGGTTCTATCAAT  
GGAGGTGACCGACCTGGGGATCCAGTTTGTGCGATTCAAAGTCTAACCCTGGGAACCATGTGGAGATCC  
AAGCTGCCTACATTGGCACAATAATCATTCCGGCAGACAGCTGGGCAGCTCTCCTTCTCCATCAAGGT  
AGCAGAGGATGTGGCCATGGCCTTCTCAGCTGAACAGGACCTGCAGCTCTGTGTTGGGGGTGCCCTCCA  
AGTCAGCGACTCTCTCGATCAGAGCGCAATCGTCGGGGAGCTATAACCATTGATACTGCCAGACGGCTGT  
GCAAGGAAGGGCTTCCAGTGAAGATGCTTACTTCCATTCTGTCTTTGATGTTTTAATTTCTGGTGA  
TCCCAACTTTACCGTGGCAGCTCAGGCAGCACTGGAGGATGCCCGAGCCTTCTGCCAGACTTAGAGAAG  
CTGCATCTTCCCCTCAGATGCTGGGGTTCCTTTTCTCAGCAACCCTTAGCTCCACTCCTTTCTG  
GGCTCTTTGTTCTGTGGCTTTGCATTAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210553 representing NM\_213652  
 Red=Cloning site Green=Tags(s)

MIQHNC SRQGPTAPPPRGPALPGAGSGLPAPDPCDYEGRF SRLHGRPPGFLHCASF GDPHVRSFHHHFH  
 TCRVQGA WPLLDNDFL VQATSSPMALGANATATRKLTIIFKNMQECIDQKVVYQAEVDNLPVAFEDGSIN  
 GGDRPGGSSLSIQTANPGNHVEIQAA YIGTTIIIRQTAGQLSFSIKVAEDVAMAFSAEQDLQLCVGGCPP  
 SQRLSRSERNRRG AITIDTARRLCKEGLPVEDAYFHSCVFDVLI SGPNTVAAAQALEDARAFLPDLEK  
 LHLFPSDAGVPLSSATLLAPLLSGLFVLWLCIQ

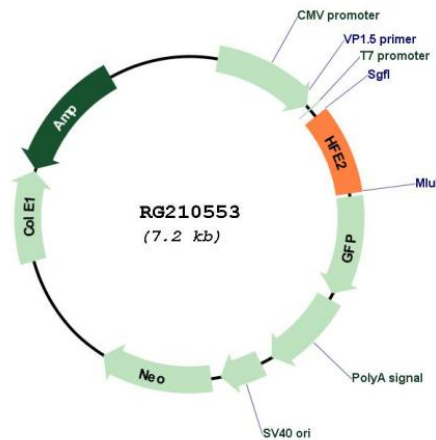
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_213652

ORF Size: 942 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_213652.3</a> , <a href="#">NP_998817.1</a>
<b>RefSeq Size:</b>	1488 bp
<b>RefSeq ORF:</b>	603 bp
<b>Locus ID:</b>	148738
<b>UniProt ID:</b>	<a href="#">Q6ZVN8</a>
<b>Cytogenetics:</b>	1q21.1
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	<p>The product of this gene is involved in iron metabolism. It may be a component of the signaling pathway which activates hepcidin or it may act as a modulator of hepcidin expression. It could also represent the cellular receptor for hepcidin. Two uORFs in the 5' UTR negatively regulate the expression and activity of the encoded protein. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. Defects in this gene are the cause of hemochromatosis type 2A, also called juvenile hemochromatosis (JH). JH is an early-onset autosomal recessive disorder due to severe iron overload resulting in hypogonadotrophic hypogonadism, hepatic fibrosis or cirrhosis and cardiomyopathy, occurring typically before age of 30. [provided by RefSeq, Oct 2015]</p>