

Product datasheet for **RG217954**

Repulsive Guidance Molecule C (HFE2) (NM_213653) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Repulsive Guidance Molecule C (HFE2) (NM_213653) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Repulsive Guidance Molecule C
Synonyms:	HFE2; HFE2A; JH; RGMC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217954 representing NM_213653 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGGAGCCAGGCCAGTCCCCTAGTCCCAGGTCCTCCCATGGCAGTCCCCAACTCTAAGCACTCTCA
CTCTCCTGCTGCTCCTCTGTGGACATGCTCATTCTCAATGCAAGATCCTCCGCTGCAATGCTGAGTACGT
ATCGTCCACTCTGAGCCTTAGAGGTGGGGTTCATCAGGAGCACTTCGAGGAGGAGGAGGAGGAGGCCGG
GGTGGAGGGTGGGCTCTGGCGGCTCTGTGAGCCCTCCGCTCCTATGCGCTCTGCACTCGGCGCACCC
CCCGCACCTGCCCGGGACCTCGCCTTCCATTGGCGGTACATGGCATCGAAGACCTGATGATCCAGCA
CAACTGCTCCCGCCAGGGCCCTACAGCCCTCCCGGCCCGGGCCCGCCCTTCCAGGCGGGGCTCC
GGCTCCCTGCCCGGACCCCTTGACTATGAAGGCCGGTTTTCCCGGCTGCATGGTCGTCCTCCCGGGT
TCTTGCAATGCGCTTCTTCCGGGACCCCATGTGCGCAGCTTCCACCATCACTTTCACACATGCCGTGT
CCAAGGAGCTTGGCCTCTACTGGATAATGACTTCTCTTTGTCCAAGCCACCAGCTCCCCATGGCGTTG
GGGGCCAACGCTACCGCCACCCGGAAGCTACCATCATATTTAAGAACATGCAGGAATGCATTGATCAGA
AGGTGTATCAGGCTGAGGTGGAATCTTCTGTAGCCTTTGAAGATGGTTCTATCAATGGAGGTGACCG
ACCTGGGGATCCAGTTTGTGATTCAAATGCTAACCCTGGGAACCATGTGGAGATCCAAGCTGCCTAC
ATTGGCACAATAATCATTGCGCAGACAGCTGGCAGCTCTCCTTCTCCATCAAGGTAGCAGAGGATG
TGGCCATGGCCTTCTCAGCTGAACAGGACCTGCAGCTCTGTGTTGGGGGTGCCCTCCAAGTCAGCGACT
CTCTCGATCAGAGCGCAATCGTCGGGGAGCTATAACCATTGATACTGCCAGACGGCTGTGAAGGAAGGG
CTTCCAGTGGAAGATGCTTACTTCCATTCTGTGCTTTTGATGTTTTAATTTCTGGTGATCCCAACTTTA
CCGTGGCAGCTCAGGCAGCACTGGAGGATGCCCGAGCCTTCTGCCAGACTTAGAGAAGCTGCATCTCTT
CCCCTCAGATGCTGGGGTCTCTTTCTCAGCAACCCTTTAGCTCCACTCCTTTCTGGGCTCTTTGTT
CTGTGGCTTTGCATTAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG217954 representing NM_213653
 Red=Cloning site Green=Tags(s)

MGEPGQSPSPRSSHSGPPTLSTLTLLLLCGHAHSQCKILRCNAEYVSSTLSLRGGGSSGALRGGGGGGR
 GGGVGSGLCRALRSYALCTRRTARTCRGDLAFHSAVHGIEDLMIQHNSRQGPAPPPRGPALPGAGS
 GLPAPDPCDYEGRF SRLHGRPPGFLHCASF GDPHVRSFHHHFHTCRVQGAWPLLDNDFLFVQATSSPMAL
 GANATATRKLTIIFKNMQECIDQKVVYQAEVDNLPVAFEDGSINGDRPGSSLSIQTANPGNHVEIQAAAY
 IGTIIIRQTAGQLSFSIKVAEDVAMAFSAEQDLQLCVGGCPPSQRLSRSERNRRAITIDTARRLCKEG
 LPVEDAYFHSCVFDVLISGDPNFTVAAQALEDARAFLPDLEKHLHFPSDAGVPLSSATLLAPLLSGLFV
 LWLCIQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_213653

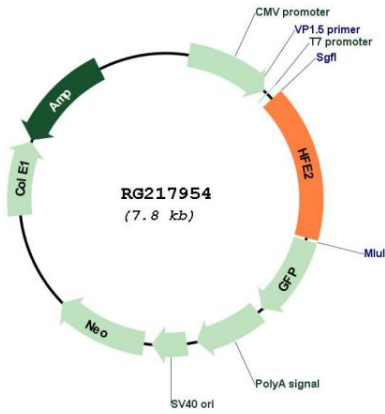
ORF Size: 1278 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<u>NM_213653.4</u>
RefSeq Size:	2234 bp
RefSeq ORF:	1281 bp
Locus ID:	148738
UniProt ID:	<u>Q6ZVN8</u>
Cytogenetics:	1q21.1
Protein Families:	Transmembrane
Gene Summary:	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]

Product images:



Circular map for RG217954