

## Product datasheet for RC219194

### HFE (NM\_139003) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HFE (NM_139003) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HFE
Synonyms:	HFE1; HH; HLA-H; MVCD7; TFQTL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219194 representing NM_139003 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCCCGGAGCCAGGCCGGCGCTTCTCCTCTGATGCTTTTGCAGACCGCGGTCTGCAGGGGCGCT  
TGCTGCGTTCACACTCTCTGCACTACCTCTTCATGGGTGCCTCAGAGCAGGACCTTGGTCTTTCCTTGT  
TGAAGCTTTGGGCTACGTGGATGACCAGCTGTTTCGTGTTCTATGATCATGAGAGTCGCCGTGGAGCCC  
CGAACTCCATGGGTTCCAGTAGAATTTCAAGCCAGATGTGGCTGCAGCTGAGTCAGAGTCTGAAAGGGT  
GGGATCACATGTTCACTGTTGACTTCTGGACTATTATGAAAAATCACAACCACAGCAAGGTGACCACTCT  
ACGGTGTCCGGCCTTGAACCTAAAGACGTATTGCCAATGGGGATGGGACCTACCGGGCTGGATAACCT  
TGGCTGTACCCCTGGGGAAGAGCAGAGATATACGTGCCAGGTGGAGCACCCAGGCTGGATCAGCCCT  
CATTGTGATCTGGGAGCCCTCACCGTCTGGCACCTAGTCATTGGAGTCATCAGTGGAAATGCTGTTTTT  
GTCGTCATCTTGTTCATTGGAATTTTGTTCATAATATTAAGGAAGAGGCAGGGTTCAAGAGGAGCCATGG  
GGCACTACGTCTTAGCTGAACGTGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC219194 representing NM\_139003  
Red=Cloning site Green=Tags(s)

MGPRARPALLLLMLLQTAVLQGRLLRSHSLHYLFMGASEQDLGLSLFEALGYVDDQLFVFDHESRRVEP  
 RTPWVSSRISSQMWLQLSLSKLGWDHMFVDFWTIMENHNHNSKVTTLRCRALNYYPQNITMKWLKDKQPM  
 DAKEFEPKDVLPNGDGTQGWITLAVPPGEEQRYTCQVEHPGLDQPLIIVIWEPPSGTLVIGVISGIAVF  
 VVILFIGILFIILRKRQGSRGAMGHYVLAERE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_139003

**ORF Size:** 726 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\\_139003.3](#)

**RefSeq Size:** 1904 bp

**RefSeq ORF:** 729 bp

**Locus ID:** 3077

**UniProt ID:** [Q30201](#)

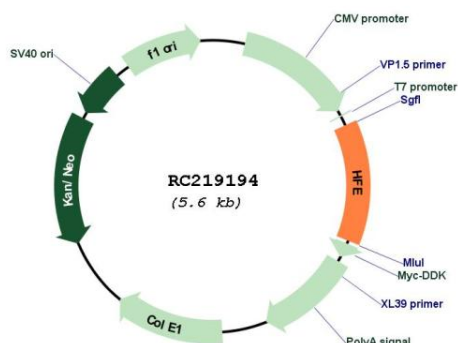
**Cytogenetics:** 6p22.2

**Protein Families:** Druggable Genome, Transmembrane

**MW:** 27.7 kDa

**Gene Summary:** The protein encoded by this gene is a membrane protein that is similar to MHC class I-type proteins and associates with beta2-microglobulin (beta2M). It is thought that this protein functions to regulate iron absorption by regulating the interaction of the transferrin receptor with transferrin. The iron storage disorder, hereditary haemochromatosis, is a recessive genetic disorder that results from defects in this gene. At least nine alternatively spliced variants have been described for this gene. Additional variants have been found but their full-length nature has not been determined. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC219194