

Product datasheet for RC219465

HFE (NM_139009) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HFE (NM_139009) 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:	>RC219465 representing NM_139009 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCCCGAGCCAGGCCGGCGCTTCTCCTCCTGATGCTTTTGCAGACCGCGGTCTGCAGGGGCGCT
TGCTGCCTTTGGGCTACGTGGATGACCAGCTGTTCTGTCTATGATCATGAGAGTCGCCGTGGAGCC
CCGAACCCATGGGTTCCAGTAGAATTTCAAGCCAGATGTGGCTGCAGCTGAGTCAGAGTCTGAAAGGG
TGGGATCACATGTTCACTGTTGACTTCTGGACTATTATGGAAAATCACAACCACAGCAAGGAGTCCCACA
CCCTGCAGGTCATCCTGGGCTGTGAAATGCAAGAAGACAACAGTACCGAGGGCTACTGGAAGTACGGGTA
TGATGGGCAGGACCACCTTGAATTCGCCCTGACACACTGGATTGGAGAGCAGCAGAACCAGGGCCTGG
CCCACCAAGCTGGAGTGGGAAAGGCACAAGATTCGGGCCAGGCAGAACAGGGCCTACCTGGAGAGGGACT
GCCCTGCACAGCTGCAGCAGTTGCTGGAGCTGGGAGAGGTGTTTTGGACCAACAAGTGCCTCCTTTGGT
GAAGGTGACACATCATGTGACCTCTCAGTGACCACTCTACGGTGTGGGCTTGAACCTACTACCCCCAG
AACATCACCATGAAGTGGCTGAAGGATAAGCAGCCAATGGATGCCAAGGAGTTCGAACCTAAAGACGTAT
TGCCCAATGGGGATGGGACCTACCAGGGCTGGATAACCTTGGCTGTACCCCTGGGGAAGAGCAGAGATA
TACGTGCCAGGTGGAGCACCCAGGCCTGGATCAGCCCCATTGTGATCTGGGAGCCCTCACCGTCTGCC
ACCCTAGTCATTGGAGTCATCAGTGAATTGCTGTTTTTGTGTCATCTTGTTCATTGGAATTTTGTTC
TAATATTAAGGAAGAGGCAGGGTTCAAGAGGAGCCATGGGGCACTACGTCTTAGCTGAACGTGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC219465 representing NM_139009
Red=Cloning site Green=Tags(s)

MGPRARPALLLLMLLQTAVLQGRLLPLGYVDDQLFVFDHESRRVEPRTPWVSSRISQMWLQLSLSLKG
 WDHMFVTDFWTIMENHNHKSESHLLQVILGCEMQEDNSTEGYWKYGYDGDHLEFCPDTLDWRAAEPRAW
 PTKLEWERHKIRARQNRAYLERDCPAQLQQLLELGRGVLDDQVPLVKVTHHVTSSVTLLRCRALNYYPQ
 NITMKWLKDKQPMDAKEFEKDVLPNGDGTYQGWITLAVPPGEEQRYTCQVEHPGLDQPLIWIWEPSPSG
 TLVIGVISGIAVFWVILF IGILF IILRKRQSGRGAMGHYVLAERE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8052_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_139009

ORF Size: 975 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_139009.3](#)

RefSeq Size: 1280 bp

RefSeq ORF: 978 bp

Locus ID: 3077

UniProt ID: [Q30201](#)

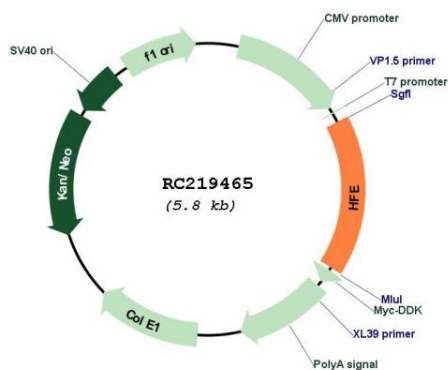
Cytogenetics: 6p22.2

Protein Families: Druggable Genome, Transmembrane

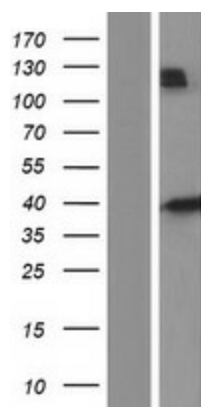
MW: 35.1 kDa

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]

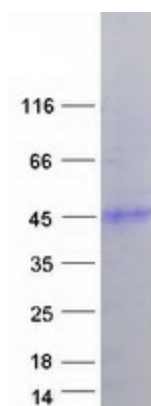
Product images:



Circular map for RC219465



Western blot validation of overexpression lysate (Cat# [LY408436]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219465 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HFE protein (Cat# [TP319465]). The protein was produced from HEK293T cells transfected with HFE cDNA clone (Cat# RC219465) using MegaTran 2.0 (Cat# [TT210002]).