

Product datasheet for SC306101

HFE (NM 139004) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: HFE (NM_139004) Human Untagged Clone

Tag: Tag Free

Symbol: HFE

Synonyms: HFE1; HH; HLA-H; MVCD7; TFQTL2

Vector: <u>pCMV6 series</u>

Fully Sequenced ORF: >NCBI ORF sequence for NM_139004, the custom clone sequence may differ by one or more

nucleotides

ATGGGCCCGCGAGCCAGGCCGGCGCTTCTCCTCCTGATGCTTTTGCAGACCGCGGTCCTG
CAGGGGCGCTTGCTGCGTTCACACTCTCTGCACTACCTCTTCATGGGTGCCTCAGAGCAG
GACCTTGGTCTTTCCTTGTTTGAAGCTTTGGGCTACGTGGATGACCAGCTGTTCC
TATGATCATGAGAGTCGCCGTGTGGAGCCCCGAACTCCATGGGTTTCCAGTAGAATTTCA
AGCCAGATGTGGCTGCAGCTGAGTCAGAGTCTGAAAGGGTGGGATCACATGTTCACTGTT
GACTTCTGGACTATTATGGAAAATCACAACCACAGCAAGGTGCCTCCTTTGGTGAAGGTG
ACACATCATGTGACCTCTTCAGTGACCACTCTACGGTGTCGGGCCTTGAACTACTACCCC
CAGAACATCACCATGAAGTGGCTGAAGGATAAGCAGCCAATGGATGCCAAGGAGTTCGAA
CCTAAAGACGTATTGCCCAATGGGGATGGGACCTACCAGGGCTGGATAACCTTGGCTGTA
CCCCCTGGGGAAGAGACAGAGATATACGTGCCAGGTGGAGCACCCAGGCCTGGATCAGCCC
CTCATTGTGATCTGGGAGCCCTCACCGTCTGGCACCCTAGTCATTGGAGTCATCAGTGGA
ATTGCTGTTTTTTGTCGTCATCTTGTTCATTGGAATTTTGTTCATAATATTAAGGAAGAGG

Restriction Sites: Please inquire **ACCN:** NM 139004

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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).



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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: <u>NM 139004.1</u>, <u>NP 620573.1</u>

 RefSeq Size:
 1922 bp

 RefSeq ORF:
 771 bp

 Locus ID:
 3077

 UniProt ID:
 Q30201

 Cytogenetics:
 6p22.2

Protein Families: Druggable Genome, Transmembrane

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]

Transcript Variant: This variant (4) lacks an internal in-frame segment of the coding region, compared to variant 1, resulting in a shorter protein (isoform 4). CCDS Note: This CCDS ID represents a variant of the HFE gene that lacks an internal coding exon compared to the longest variant, which is represented by CCDS4578.1. This results in an isoform that includes

the Immunoglobulin constant region (IGc) domain but lacks a portion of the Class I

Histocompatibility antigen (MHC I) domain.