

## Product datasheet for **SC310106**

### Transferrin Receptor 2 (TFR2) (NM\_003227) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Transferrin Receptor 2 (TFR2) (NM_003227) Human Untagged Clone
Tag:	Tag Free
Symbol:	Transferrin Receptor 2
Synonyms:	HFE3; TFRC2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_003227 edited  
CACGCTCTGGAAGGCTGGACTGAGGCCAGGACTGTGCCCCACCCTTGGGGGTGGTGAGGA  
GCAGCCTTGGTTCAGGCTGCCTGCCAGGACTGATAAGGGGCCCTCCTAGGGCTCCCACAA  
ACGGTTTATCGGTTTATCGCTGGGGACAGCCTGCAGGCTTCAGGAGGGACACAAGCAT  
GGAGCGGCTTTGGGTCTATTCCAGAGAGCGCAACAACCTGTCCCAAGATCCTCTCAGAC  
CGTCTACCAGCGTGTGGAAGGCCCGAAAGGGCACCTGGAGGAGGAAGAGGAAGACGG  
GGAGGAGGGGGCGGAGACATTGGCCCACTTCTGCCCATGGAGCTGAGGGGCCCTGAGCC  
CCTGGGCTCTAGACCCAGGCAGCCAAACCTCATTCCCTGGGCGGCAGCAGGACGGAGGGC  
TGCCCCCTACCTGGTCTGACGGCCCTGCTGATCTTCACTGGGGCCTTCTACTGGGCTA  
CGTCGCCTCCGAGGGTCTGCCAGGCGTCCGGAGACTCTGTGTTGGTGGTCAGTGAGGA  
TGTCAACTATGAGCCTGACCTGGATTTCCACCAGGGCAGACTCTACTGGAGCGACCTCCA  
GGCCATGTTCTCAGATTCTGGGGAGGGGCGCCTGGAGGACACCATCAGGCAAACAG  
CCTTCGGGAACGGGTGGCAGGCTCGGCCGGATGGCCGCTCTGACTCAGGACATTCGCGC  
GGCGCTCTCCCGCAGAAGCTGGACCACGTGTGGACCGACACGCACTACGTGGGGCTGCA  
ATTCGCGATCCGGCTCACCCCAACACCCTGCACTGGGTGATGAGGCCGGGAAGGTGCG  
AGAGCAGCTGCCGCTGGAGGACCCTGACGTCTACTGCCCTACAGCGCCATCGGCAACGT  
CACGGGAGAGCTGGTGTACGCCACTACGGGCGGCCGAAGACCTGCAGGACCTGCGGGC  
CAGGGGCGTGGATCCAGTGGGCCGCTGCTGCTGGTGCAGTGGGGTGGTATCAGTTCGC  
CCAGAAGGTGACCAATGCTCAGGACTTGGGGCTCAAGGAGTGCTCATATACCCAGAGCC  
AGCGGACTTCTCCAGGACCCACCCAAGCCAAGCCTGTCCAGCCAGCAGGCAAGTGTATGG  
ACATGTGCACCTGGAACTGGAGACCCCTACACACCTGGCTTCCCTTCTTCAATCAAAC  
CCAGTTCCTCCAGTTGCATCATCAGGCCTTCCAGCATCCCAGCCAGCCCATCAGTGC  
AGACATTGCCTCCCGCTGCTGAGGAAGCTCAAAGGCCCTGTGGCCCCCAAGAATGGCA  
GGGGAGCCTCCTAGGCTCCCCTTATCACCTGGGCCCGGGCCACGACTGCGGCTAGTGGT  
CAACAATCACAGGACCTCACCCCATCAACAACATCTTCGGCTGCATCGAAGGCCGCTC  
AGAGCCAGATCACTACGTTGTCATCGGGGCCAGAGGGATGCATGGGGCCAGGAGCAGC  
TAAATCCGCTGTGGGACGGCTATACTCCTGGAGCTGGTGGGACCTTTTCTCCATGTT



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GAGCAACGGCTTCCGGCCCCGAGAAGTCTCCTTTCATCAGCTGGGACGGTGGTGACTT  
 TGAAGCGTGGGCTCCACGGAGTGGCTAGAGGGCTACCTCAGCGTGCACCTCAAAGC  
 CGTAGTGTACGTGAGCCTGGACAACGCAGTGTGGGGATGACAAGTTTCATGCCAAGAC  
 CAGCCCCCTTCTGACAAGTCTCATTGAGAGTGTCTGAAGCAGGTGGATTCTCCCAACCA  
 CAGTGGGCAGACTCTCTATGAACAGGTGGTGTTCACCAATCCCAGCTGGGATGCTGAGGT  
 GATCCGGCCCCCTACCCATGGACAGCAGTGCCTATTCCTTCACGGCCTTTGTGGGAGTCCC  
 TGCCGTGAGTTCTCCTTATGGAGGACGACCAGGCCTACCCATTCCTGCACACAAAAGGA  
 GGACACTTATGAGAACCTGCATAAGGTGCTGCAAGGCCGCTGCCCGCCTGGCCAGGC  
 CGTGGCCAGCTCGCAGGGCAGCTCCTCATCCGGCTCAGCCACGATCGCCTGCTGCCCT  
 CGACTTCGGCCGCTACGGGGACGTGCTCCTCAGGCACATCGGAACTCAACGAGTTCTC  
 TGGGGACCTCAAGGCCCGCGGGTGACCCTGCAGTGGGTGACTCGGCCGGGGGACTA  
 CATCCGGCGCGGAAAAGCTGCGGCAGGAGATCTACAGCTCGGAGGAGAGACGAGCG  
 ACTGACACGCATGTACAACGTGCGCATAATGCGGGTGGAGTTCTACTTCTTTCCAGTA  
 CGTGTCCGACGGCAGTCCCGTTCGCCACATCTTCATGGGCCGTGGAGACCACAGCT  
 GGGCGCCTGCTGGACCCTGCGGCTGCTGCGCTCCAACAGCTCCGGGACCCCCGGGGC  
 CACTCCTCCACTGGCTTCCAGGAGAGCCGTTTCCGGCGTCAGCTAGCCCTGCTCACTG  
 GACGCTGCAAGGGGCAGCAATGCGCTTAGCGGGGATGTCTGGAACATTGATAACAACCT  
 CTGAGGCCCTGGGGATCCTCACATCCCCGTCCCCAGTCAAGAGCTCCTCTGCTCCTCGC  
 TTGAATGATTACGGGTACGGGAGGTGGCTCAGAGTCCACCTCTCATTGCTGATCAATTC  
 TCATTACCCCTACACATCTTCCACGGAGCCAGACCCAGCACAGATATCCACACACC  
 CAGCCCTGCAGTGTAGCTGACCTAATGTGACGGTCATACTGTGCGTTAATCAGAGAGTA  
 GCATCCCTTCAATCACAGCCCCCTCCCTTTCTGGGGTCTCCATACCTAGAGACCACTC  
 TGGGAGTTTGTAGCCCTGGGACCTGGCCAGCTCTGTTAGTGGGAGAGATCGTGGCA  
 CCATAGCCTTATGGCCAACAGGTGCTGTGGTGAAGGGGCGTGGAGTTTCAATATCAA  
 TAAACCCTGATATCAAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003227 unedited  
 CATTTCTCGTACCCTAGACTCATTATAGGGTCGGCTGCGATCCGGCACCAGCAGTCT  
 TGAAGCTGGACTGAGGCCAGGACTGTGCCCCACCCTTGGGGTGGTGAAGGAGCAGCCT  
 TGGTTCAGGCTGCCTGCCAGGACTGATAAGGGGCCCTCCTAGGGCTCCCAAAACGGTTT  
 ATCGGTTTATCGCTGGGGGACAGCCTGCAGGCTTCAGGAGGGGACACAAGCATGGAGCGG  
 CTTTGGGGTCTATTCCAGAGAGCGCAACAACCTGTCCCAAGATCCTCTCAGACCGTCTAC  
 CAGCGTGTGGAAGGCCCCCGAAAGGGCACCTGGAGGAGGAAGAGGAAGACGGGGAGGAG  
 GGGGCGGAGACATTGGCCCACTTCTGCCCCATGGAGCTGAGGGGCCCTGAGCCCCGGGC  
 TCTAGACCCAGGCAGCAAACTCATTCCCTGGGCGCAGCAGGACGGAGGGCTGCCCCC  
 TACCTGGTCTGACGGCCCTGCTGATCTTCACTGGGGCTTCTACTGGGCTACGTGCGC  
 TTCGAGGGTCTGCCAGGCGTGCAGGACTCTGTGTTGGTGGTCACTGAGGATGTCAAC  
 TATGAGCCTGACCTGGATTTCCACCAGGGCAGACTCTACTGGAGCGACCTCCAGGCCATG  
 TTCTGAGTTCCTGNGGAGGGGCGCCTGGAGGACACCATCAGGCANACCAGCCTTTCG  
 GAACGGGTGGCANGCCTCGCCGGNATGGCCGCTCTGACTCANGACATTCCGCGGGGGCTC  
 TTCGCCAGAAGCTGGACCACGTGTGGGACCGACACGCACTACGTGGGGCTGCAATTTCC  
 GGATTCGGCTCACCCCA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_003227

**Insert Size:**

3000 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](mailto: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:** The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

**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\\_003227.3](#), [NP\\_003218.2](#)

**RefSeq Size:** 2891 bp

**RefSeq ORF:** 2406 bp

**Locus ID:** 7036

**UniProt ID:** [Q9UP52](#)

**Cytogenetics:** 7q22.1

**Protein Families:** Druggable Genome, Protease, Transmembrane

**Gene Summary:** This gene encodes a single-pass type II membrane protein, which is a member of the transferrin receptor-like family. This protein mediates cellular uptake of transferrin-bound iron, and may be involved in iron metabolism, hepatocyte function and erythrocyte differentiation. Mutations in this gene have been associated with hereditary hemochromatosis type III. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, May 2011]  
 Transcript Variant: This variant (1) encodes the longer isoform (1, also known as alpha).