

## Product datasheet for **SC118685**

### Lactoferrin (LTF) (NM\_002343) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lactoferrin (LTF) (NM_002343) Human Untagged Clone
Tag:	Tag Free
Symbol:	Lactoferrin
Synonyms:	GIG12; HEL110; HLF2; LF
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC118685 sequence for NM\_002343 edited (data generated by NextGen Sequencing)

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ATGAAACTTGTCTTCTCGTCTGCTGTTCTCGGGGCCCTCGGACTGTGTCTGGCTGGC
CGTAGGNNAGTGTTCAGTGGTGACCCGTATCCCAACCCGAGGCCACAAAATGCTTCAA
TGGCAAAGGAATATGAGAAGAGTGCCTGGCCCTCTGTGACGTGCATAAAGAGAGACTCC
CCCATCCAGTGTATCCAGGCCATTGCGGAAAACAGGGCCGATGCTGTACCCTTGATGGT
GGTTTCATATACGAGGCAGGCCCTGGCCCCACAAAACGCGACCTGTAGCGGCGGAAGTC
TACGGGACCGAAAAGACAGCCACGAACCTACTATTATGCCGTGGCTGTGGTGAAGAAGGGC
GGCAGCTTTCAGCTGAACGAACCTGCAAGGTCTGAAGTCTGCCACACAGGCCCTTCGAGG
ACCGCTGGATGGAATGTCCCTATAGGGACACTTCGTCCATTCTTGAATTGGACGGGTCCA
CCTGAGCCATTGAGGCAGCTGTGGCCAGGTTCTTCTCAGCCAGCTGTGTTCCCGGTGCA
GATAAAGGACAGTTCACCAACCTGTGTCGCTGTGTGCGGGGACAGGGGAAAACAATGT
GCCTTCTCCTCCAGGAACCGTACTTCAGTACTCTGGTGCCTTCAAGTGTCTGAGAGAC
GGGGCTGGAGACGTGGCTTTTATCAGAGAGAGCACAGTGTGAGGACCTGTGAGACGAG
GCTGAAAGGGACGAGTATGAGTTACTCTGCCAGACAACACTCGGAAGCCAGTGGACAAG
TTCAAAGACTGCCATCTGGCCCCGGTCCCTTCTCATGCCGTTGTGGCACGAAGTGTGAAT
GGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGGAAAGGAC
AAGTCACCGAAATTCAGCTCTTTGGCTCCCCTAGTGGGCAGAAAAGATCTGCTGTTCAAG
GACTCTGCCATTGGGTTTTCGAGGGTGGCCCCGAGGATAGATTCTGGGCTGTACCTTGGC
TCCGGCTACTTCACTGCCATCCAGAACTTGAGGAAAAGTGAGGAGGAAGTGGCTGCCCGG
CGTGCGCGGGTGTGTGGTGTGCGGTGGGCGAGCAGGAGCTGCACAAGTGTAAACAGTGG
AGTGGCTTGAGCGAAGGCAGCGTGACCTGCTCCTCGGCCCTCCACCACAGAGGACTGCATC
GCCCTGGTGTGAAAGGAGAAGCTGATGCCATGAGTTTGGATGGAGGATATGTGTACACT
GCAGGCAAAATGTGGTTTTGGTGCCTGTCCCTGGCAGAGAACTACAAAATCCCAACAAAGCAGT
GACCCTGATCCTAACTGTGTGGATAGACCTGTGGAAGGATATCTTGTGTGGCGGTGGTT
AGGAGATCAGACACTAGCCTTACCTGGAACCTGTGAAAGGCAAGAAGTCTGCCACACC
GCCGTGGACAGGACTGCAGGCTGGAATATCCCATGGGCCTGCTTCAACCAGACGGGC
TCCTGCAAATTTGATGAATATTTAGTCAAAGCTGTGCCCTGGGTCTGACCCGAGATCT
AATCTCTGTGCTGTGTATTGGCGACGAGCAGGGTGAGAATAAGTGCCTGCCAACAGC
AATGAGAGATACTACGGTACACTGGGGCTTCCGGTGCCTGGCTGAGAATGCTGGAGAC
GTTGCATTTGTGAAAGATGTCAGTGTCTTGCAGAACACTGATGGAATAACAATGAGGCA
TGGGCTAAGGATTTGAAGCTGGCAGACTTTGCGCTGCTGTGCCTCGATGGCAAACGGAAG
CCTGTGACTGAGGCTAGAAGCTGCCATCTTGCCATGGCCCCGAATCATGCCGTGGTGTCT
CGGATGGATAAGGTGGAACGCCTGAAACAGGTGCTGCTCCACCAACAGGCTAAATTTGGG
AGAAATGGATCTGACTGCCCGGACAAGTTTTGCTTATTCCAGTCTGAAACCAAAAACCTT
CTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAAACAACATATGAAAAA
TATTTGGGACCACAGTATGTCGAGGCATTACTAATCTGAAAAAGTGCTCAACCTCCCCC
CTCCTGGAAGCCTGTGAATTCCTCAGGAAGTAA

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Clone variation with respect to NM\_002343.3  
67 a=>n;68 g=>n;85 g=>a;140 a=>g;1623 c=>t;1894 t=>c

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002343 unedited  
 GTCAAAATTTGTATACGACTCACTATAGGCGGCCGCGATTTCGGCAGGAGGAGCAAACCCA  
 CCTGCCCTAACTGGCTCCTAGGCACCTTCAAGTCATCTGCTGAAGAAGATAGCAGTCTCA  
 CAGGTCAAGGCGATCTTCAAGTAAAGACCCTCTGCTCTGTGCTGCCCTCTAGAAGGCA  
 CTGAGACCAGAGCTGGGACAGGGCTCAGGGGGCTGCGACTCCTAGGGGCTTGCACTAG  
 TGGGAGAGAAAAGAACATCGCAGCAGCCAGGCAGAAACCAGGACAGGTGAGGTGCAGGCTGG  
 CTTTCCTCTCGCAGCGCGGTGTGGAGTCTGTCCTGCCTCAGGGCTTTTCGGAGCCTGGA  
 TCCTCAAGGAACAAGTAGACCTGGCCCGGGGAGTGGGGAGGGAAGGGGTGTCTATTGGG  
 CAACAGGGCGGGGCAAAGCCCTGAATAAAGGGGCGCAGGGCAGGCAGCAAGTGGCAGAGCC  
 TTCGTTTGCCAAGTCGCCTCCAGACCGCAGACATGAAACTTGTCTTCTCGTCTGCTGT  
 TCCTCGGGGCCCTCGACTGTGTCTGGCTGGCCGTAGGAGAAGGAGTGTTCAAGTGGTGA  
 CCGTATCCCAACCCGAGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAGAAGAGTGC  
 GTGGCCCTCTGTGAGTGCATAAAGAGAGACTCCCCATCCAGTGTATCCAGGCCATTG  
 CGGAAAACAGGGCCGATGCTGTGACCCTTNGATGGTGGTTTCATATACGAAGCAGGCCTG  
 GCCCCCTACAAC TGCACCTGTAGCGGGGGAAGTCTACGGGACCGAAAGACAGCCACGAA  
 C TCACTATTATGCCCGTGGNCTGTGGTGAAGAAAGGCNGGCAGCTNTCAGCTGAACGAAC  
 TNNCAGTCTGAAGTCTGCCACACAGCCTTC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002343 unedited  
 ATGGACCGGCGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT  
 TTTTTTTTTTTTTTTTTTTTTTTTTTTATCAACAAAATTTCTCATTTTACTTTTTGCTAAAAC  
 CACAGCAGGGAATTGTAAGCAAATGGATGGGCAATCCCCACCTTACGAGGGGAGGCCAA  
 GGCCCCAACACACTGGGAAAAAAGCTGGGGGCAAGTGAATGGCTGAGGCTTTTTTGGG  
 GAGCTGGGCCATCTTTTTCGGTTTTACTTCTGAGGAATTCACAGGGCTTTTCCAGAGAG  
 GGGGGAGGTTGAGCACTTTTACAAATTAATAATGCCTGCGACATACTGTGGTGCCAAA  
 AATATTTTTTATATAATTGGTNNNGCCNCCNCCNCCNCCNCCNCCNCCNCCNCCNCCNCC  
 CCCCCCTCTCGTCCCTCGCTCTCTCCCCCTTCACTTCTATTCTACCCATTCTGCTTC  
 TCCCCATCTTCCCCATCCCTCTCCACCCCCCTCTTCTTCCCCCTCCCCCCCCCGC  
 TTCTTTTTATCCCTCTTCTCCCCCGTATTCTTTCCACCCCCCTTCCCCCTCCCC  
 CTCTCCCCCTTTTTCCCCCTCCCCCTCCCCCTCCCCCTTTTTTCCCCCCCCCTTTCT  
 TTCCCCCTTTCCCCCTTCCCCCTTCTTCTTGTCCCTCTTCTCTCTCCCCGCTTTCTT  
 CCTCCCTTCCCCATTCTTCTTCCCCCTCCCTTTCTTTTCCCCCTTCTCTCTCTCTCTT  
 CCCCCTCCCCCTCTACCTATTTCCCCCCCCATTTCTTTTCCCCCCCCTTTTTATTT  
 TCCTTCTCCCCCTTCTCCCCCTTCCATTTCTTCCATTCCCTCCCTCTC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002343

**Insert Size:**

2870 bp

**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).

**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\\_002343.1](#), [NP\\_002334.1](#)

**RefSeq Size:** 2619 bp

**RefSeq ORF:** 2136 bp

**Locus ID:** 4057

**UniProt ID:** [P02788](#)

**Cytogenetics:** 3p21.31

**Domains:** TR\_FER

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

**Gene Summary:** This gene is a member of the transferrin family of genes and its protein product is found in the secondary granules of neutrophils. The protein is a major iron-binding protein in milk and body secretions with an antimicrobial activity, making it an important component of the non-specific immune system. The protein demonstrates a broad spectrum of properties, including regulation of iron homeostasis, host defense against a broad range of microbial infections, anti-inflammatory activity, regulation of cellular growth and differentiation and protection against cancer development and metastasis. Antimicrobial, antiviral, antifungal and antiparasitic activity has been found for this protein and its peptides. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

[provided by RefSeq, Sep 2014]

Transcript Variant: This variant (1) encodes the longest isoform (1).