

## Product datasheet for **RC234674**

### Lactoferrin (LTF) (NM\_001199149) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lactoferrin (LTF) (NM_001199149) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lactoferrin
Synonyms:	GIG12; HEL110; HLF2; LF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234674 representing NM\_001199149  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGAAAAGTGGTGGCCCTCCTGTGACGTGCATAAAGAGAGACTCCCCATCCAGTGTATCCAGGCCA  
 TTGCGAAAACAGGGCCGATGCTGTGACCTTGATGGTGGTTTCATATACGAGGCAGGCCTGGCCCCCTA  
 CAAACTGCGACCTGTAGCGGGCGGAAGTCTACGGGACCGAAAGACAGCCACGAACTCACTATTATGCCGTG  
 GCTGTGGTGAAGAAGGGCGGCAGCTTTCAGCTGAACGAACTGCAAGGTCTGAAGTCTGCCACACAGGCC  
 TTCGCAGGACCGCTGGATGGAATGTCCCTATAGGGACACTTCGTCCATTCTTGAATTGGACGGTCCACC  
 TGAGCCCATTGAGGCAGCTGTGGCCAGTTCTTCTCAGCCAGCTGTGTTCCCGGTGCAGATAAAGGACAG  
 TTCCCAACCTGTGTCGCTGTGTGCGGGACAGGGGAAAACAAATGTGCCTTCTCTCCAGGAACCGT  
 ACTTCAGCTACTCTGGTGCCTTCAAGTGTCTGAGAGACGGGGCTGGAGACGTGGCTTTTATCAGAGAGAG  
 CACAGTGTGGAGACCTGTGACAGGAGCTGAAAGGGACGAGTATGAGTTACTCTGCCAGACAACACT  
 CGGAAGCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCGGGTCCCTTCTCATGCCGTTGTGGCAGAA  
 GTGTGAATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGAAAAGGACAA  
 GTCACCGAAAATCCAGCTCTTTGGCTCCCTAGTGGGCAGAAAAGATCTGCTGTTCAAGGACTCTGCCATT  
 GGGTTTTGAGGGGTGCCCCGAGGATAGATTCTGGGCTGTACCTTGGCTCCGGCTACTTCACTGCCATCC  
 AGAACTTGAGGAAAAGTGAAGGAGGAAAGTGGCTGCCCGCGTGCAGGGTGTGGTGTGCGGTGGGCGA  
 GCAGGAGCTGCGCAAGTGAACCAAGTGGAGTGGCTTGGCGAAGGCAGCGTGACCTGCTCCTCGGCCCTC  
 ACCACAGAGGACTGCATCGCCCTGGTGTGAAAGGAGAAGCTGATGCCATGAGTTGGATGGAGGATATG  
 TGTACTCTCAGGCAAAATGTGGTTTGGTGCCTGTCTGGCAGAGAACTACAAATCCCAACAAAGCAGTGA  
 CCCTGATCCTAACTGTGTGGATAGACCTGTGGAAGGATATCTTGCTGTGGCGGTGGTTAGGAGATCAGAC  
 ACTAGCCTTACCTGGAACCTGTGAAAGGCAAGAAGTCTGCCACACCGCGTGGACAGGACTGCAGGCT  
 GGAATATCCCATGGGCCTGCTCTTCAACCAGACGGGCTCCTGCAAATTTGATGAATATTTCACTCAAAG  
 CTGTGCCCTGGGTCTGACCCGAGATCTAATCTCTGTGCTCTGTGTATTGGCGACGAGCAGGGTGAAT  
 AAGTGGTGGCCCAACAGCAACGAGAGATACTACGGCTACACTGGGGCTTCCGGTGCCTGGCTGAGAATG  
 CTGGAGACGTTGCATTTGTGAAAGATGTCAGTGTCTTGCAGAACTGATGGAATAACAATGAGGCATG  
 GGCTAAGGATTTGAAGCTGGCAGACTTTGCGCTGCTGTGCCTCGATGGCAAACGGAAGCCTGTGACTGAG  
 GCTAGAAGCTGCCATCTGCCATGGCCCGAATCATGCCGTGGTGTCTCGGATGGATAAGGTGGAACGCC  
 TGAACAGGTGTTGCTCCACCAACAGGCTAAATTTGGGAGAAATGGATCTGACTGCCCGGACAAGTTTTG  
 CTATTCCAGTCTGAAACCAAAAACCTTCTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGC  
 AAAACAACATATGAAAAATTTGGGACCACAGTATGTGCGCAGGCATTACTAATCTGAAAAAGTGCTCAA  
 CCTCCCCCTCCTGGAAGCCTGTGAATTCCTCAGGAAG

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC234674 representing NM\_001199149  
 Red=Cloning site Green=Tags(s)

MRKVRGPPVSCIKRDSPICQIAIENRADAVTLDDGGFIYEAGLAPYKLRPVA AEVYGTERQPRTHYYAV  
 AVVKKGGSFQLNELQGLKSCHTGLRRTAGWNVP IGTLRPFLNWTGPPEIEAAVARFFSASCVPGADKGO  
 FPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLR DGAGDVAFIRESTVFEDLSDEAERDEYELLCPDNT  
 RKPVDKFKDCHLARVPSHAVVARSVNGKEDAIWNLLRQAQEKFGKDKSPKFQLFGSPSGQKDLLFKDSAI  
 GFSRVPPRIDSGLYLGSYFTAIQNLRKSEEEVAARRARVWCAVGEQELRKCQWVSGLSEGSVTCSSAS  
 TTEDCIALVLKGEADAMSLDGGYVYTAGKCLVPVLAENYKSQQSSDPDPNCVDRPVEGYLAVAVVRRSD  
 TSLTWNSVKGKKSCHTAVDRTAGWNI PMGLLFNQTGSKCFDEYFSQSCAPGSDPRS NLCALCIGDEQGEN  
 KCVPNSNERYGYTGAFRCLAENAGDVAFVKDVTVLQNTDGNNEAWAKDLKLADFALLCLDGKRKPVTE  
 ARSCHLAMAPNHAVVSRMDKVERLKQVLLHQAKFGRNGSDCPDKFLFQSETKNLLFNDNTECLARLHG  
 KTTYEKYLG PQYVAGITNLKKCSTSP LLEACEFLRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM\_001199149

ORF Size: 1998 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:** 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\\_001199149.2](#)

**RefSeq Size:** 2537 bp

**RefSeq ORF:** 2001 bp

**Locus ID:** 4057

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

**Cytogenetics:** 3p21.31

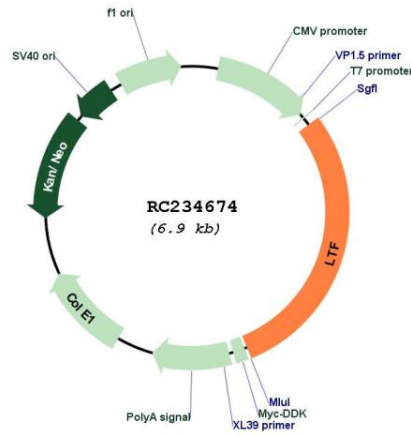
**Protein Families:** Druggable Genome, Protease, Secreted Protein

**MW:** 73.6 kDa

**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]

**Product images:**



Circular map for RC234674