

Product datasheet for **RC203140**

Lactoferrin (LTF) (NM_002343) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lactoferrin (LTF) (NM_002343) 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:

>RC203140 representing NM_002343
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAACTTGCTTCCTCGTCTGCTGTTCTCGGGCCCTCGGACTGTGTCTGGCTGGCCGTAGGAGAA
GGAGTGTTCAGTGGTGCCTGATCCCAACCCGAGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAG
AAAAGTGCCTGGCCCTCTGTGACGCTGCATAAAGAGAGACTCCCCATCCAGTGTATCCAGGCCATTGCG
GAAAACAGGGCCGATGCTGTGACCTTGTGGTGGTTTCATATACGAGGCAGGCCGGCCCCCTACAAAC
TGCGACCTGTAGCGGGGAAGTCTACGGGACCGAAAGACGCCACGAACACTATTATGCCGTGGCTGT
GGTGAAGAAGGGCGCAGCTTTCAGCTGAACGAAGTCAAGGTCTGAAGTCTGCCACACAGGCCTTCGC
AGGACCGCTGGATGGAATGTCCCTATAGGGACACTTCGTCATTCTTGAATTGGACGGTCCACCTGAGC
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CAACCTGTGTCGCTGTGTCGGGGACAGGGGAAAACAAATGTGCCTTCTCCTCCAGGAACCGTACTTC
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TGTTTGAGGACCTGTGACGAGGCTGAAAGGGACGAGTATGAGTTACTCTGCCACAGACAACACTCGGAA
GCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCGGGTCCCTTCTCATGCCGTTGTGGCACGAAGTGTG
AATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTGGAAAGGACAAGTAC
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TTGAGGAAAAGTGAGGAGGAAGTGGCTGCCCGGCTGCGCGGTCGTGTGGTGTGCGGTGGGCGAGCAGG
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CGAGCCCAACAGCAACGAGAGATACTACGGCTACACTGGGCTTCCGGTGCCTGGCTGAGAATGCTGGA
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TCCAGTCTGAAACCAAAACCTTCTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAAC
AACATATGAAAAATTTGGGACCACAGTATGTCGCAGGCATTACTAATCTGAAAAAGTGTCAACCTCC
CCCCTCTGGAAGCCTGTGAATTCCTCAGGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203140 representing NM_002343
Red=Cloning site Green=Tags(s)

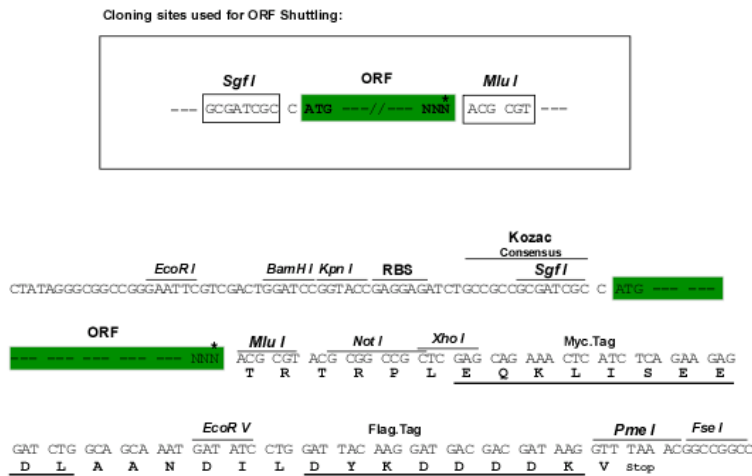
MKLVFLVLLFLGALGLCLAGRRRRSVQWCAVSQPEATKCFWQRNMRKVRGPPVSCIKRDSPIQCIQAI
 ENRADAVTLDDGGFIYEAGLAPYKLRPVAAEVYGTERRPRTHYYAVAVVKKGGSFQLNELQGLKSCHTGLR
 RTAGWNVPIGTLRPFLNWTGPPEPIEAAVARFFSASCVPADKQGFNLCRLCAGTGENKCAFSSQEPYF
 SYSGAFKCLRDGAGDVAFIRESTVFEDLSDEAERDEYELLCPDNTRKPVDFKDCHEARVPSHAVVARSV
 NGKEDAIWNLLRQAQEFKDKSPKFLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSYFTAIQN
 LRKSEEEVAARRARVWCAVGEQELRKCQWSGLSEGSVTCSSASTTEDICIALVLKGEADAMSLDGGYVY
 TAGKCGLPVLAENYKSSQSSDPDPCVDRPVEGYLAVAVVRRSDTSLTWNSVKGKKSCHTAVDRTAGWN
 IPMGLLNFQTSCKFDEYFSQSCAPGSDPRSNLCALCIGDEQGENKCEPNSNERYGYTGAFRCLAENAG
 DVAFVKDVTVLQNTDGNNEAWAKDLKADLADLCLDGRKRPVTEARSCHLAMAPNHAVSRMDKVERLK
 QVLLHQAKFGRNGSDCPDKFCLFQSETKNLLFNDNTECLARLHGKTTYEKYLGPOVYVAGITNLKCKSTS
 PLLEACEFLRK

TRTRPLEQKLISEEDLANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3691_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002343

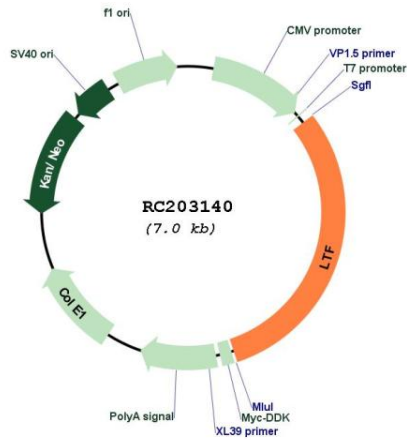
ORF Size: 2133 bp

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](#)

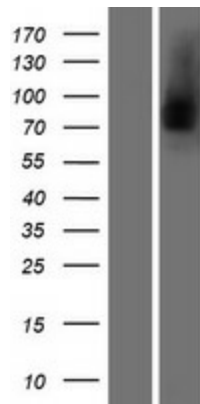
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_002343.6
RefSeq Size:	2390 bp
RefSeq ORF:	2133 bp
Locus ID:	4057
UniProt ID:	P02788
Cytogenetics:	3p21.31
Domains:	TR_FER
Protein Families:	Druggable Genome, Protease, Secreted Protein
MW:	78.37 kDa
Gene Summary:	<p>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]</p>

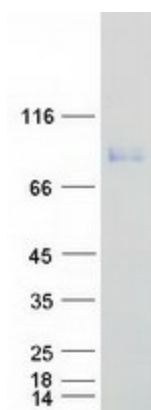
Product images:



Circular map for RC203140



Western blot validation of overexpression lysate (Cat# [LY419387]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203140 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LTF protein (Cat# [TP303140]). The protein was produced from HEK293T cells transfected with LTF cDNA clone (Cat# RC203140) using MegaTran 2.0 (Cat# [TT210002]).