

Product datasheet for **RC202855**

LETM1 (NM_012318) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LETM1 (NM_012318) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LETM1
Synonyms:	SLC55A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202855 representing NM_012318
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGTCCACTTACTGAGGAGCTGCCGCGGCCGGCGCCCGCCCTCCCGCCGCCCTCGGTACA
 CCGTCCC GCGGGTAGTCCAGGGGATCCTGCTCATCTCAGCTGTGCCAGCACCCCTGGGGTTGAGGA
 CCTGAATGTTCCATTTGGCTGCTGCACTCCCATCCACCCTGTGTACACATCCTCCAGAGGCGATCA
 GGCTGTTGGGCTCTGAGGCCGAGTGCCTTCGCATAGTGTGAGAGCGCCATGGACCTCTACCTCTG
 GTTTTGTGGCTGTGGACCTCAGTGCCTTCTGTGCGTGGCTGGCACTCTTCGCGCCCTGTTGCGG
 CTCGGTAGTAGAGAAGTCCCTCAAGTCTTGAAGGACAAGAACAAGAAGCTGGAGGAAGGCGCCCG
 TACAGCCCCCGCAGAGGTGGTGGTGAAGAAGTCCCTGGGCAGCGGGTCTGGACGAGCTGAAGCA
 ACTACCATGGCTTCCGCCTGCTATGGATCGACACCAAGATCGCGGCACGCATGCTCTGGCGCAT
 CGGCCACAGCCTGACCCCGCGGAGCGCAGGCAGTTTCTCGGATCTGCGCTGACCTCTCCGCCTGG
 CCGTTCCTTGTGTTGCTGGTGGTCCCGTTCATGGAGTTTCTGCTGCCTGTGCTGTGAAGCTCTCC
 ACATGTTGCCATCCACATTTGAGACTCAGTCACTCAAGGAGGAGAGGCTGAAGAAGGAGCTTCGGG
 TCAAGCTGGAGCTGGCAAGTTCTCCAGGACACCATCGAGGAGATGGCCTTGAAGAACAAGGCAGC
 AAGGGCAGCGCCACCAAGACTTCTCTGTGTTTTCCAGAAGATCCGGGAAACAGGGGAGAGGCCA
 GCAATGAGGAAATCATGCGTTTTTCCAAATATTTGAGGATGAGCTGACCTGGACAACCTGACACG
 CGCCGAGCTGGTGGCCCTGTGCAAGCTGCTGGAGCTACAGTCCATCGGCACCAACAACCTTCTG
 CCGTTCCAGCTTACCATGCGCTGCCCTCCATAAAGGCAGACGACAAGCTGATTGCTGAGGAAGG
 GGTTGGACAGCCTGAATGTCAAGAGCTGCAGGCAGCGTGTGCGGCACGAGGCATGCGGGCCCT
 GGGCGTCAACGGAAGACCGCCGCTGAAGCAGTGGACTCAGGAGATCCCCACATCGCTGCTCATC
 CTGTCCCGGCCATGTACCTCCCGGACACCCTCTCTCCAGCCGACCAGCTCAAGTCCACACTGCAG
 ACCCTCCAGAGATTGGCAAAGGAAGCACAGGTGAAAGTGGCCGAGGTGGAGGGCGAGCAGGTGG
 ACAACAAGGCCAAGCTGGAAGCCAGCTGCAGAGGAGGAGGCCATCCAGCAGGAGCACCGTGAGA
 AAGGAGCTGCAGAAGCGCTCGGAGGTGGCGAAGGATTTTGTAGCCGAACGTGTGGTAGCTGCT
 CCCCAGGCGGGGACCGAGCCACAGCCAGAAATGCCTGACACAGTCTGCAGTCAAGAGACCTG
 CCCCCTGCTGGAGGGCTTGAAGGAGGAAAGAGGAGCTGGAGCTGCTGAAGGAGGATGTGCAGG
 ACTACAGCGAGGACTTGCAGGAGATCAAGAAGGAACTTTCAAAGACTGGTGAAGAAAAATACGT
 GGAAGAATCTAAAGCCAGCAAGAGATTGACAAAAAGGTTGCAGCAAATGATCGGGCAGATCGAT
 GGCTTGATCTCGCAGCTGGAGATGGACCAGCAGGCTGGCAAGCTGGCCCCGGCCAACGGCATG
 CCCACGGGGGAGAACGTATCAGTGTGCTGAGCTCAACCGCATGAAGCAATTTCCGAAAGCAAG
 CTACCAGCCTGGCCGCGAGCACTGGATGA
 AAACAAGGATGGCAAGGTCAACATCGACGACCTCGTCAAGGTGATTGAGCTGGTGGACAAAGA
 AGATGTTACATCTCCACCAGCCAGGTGGCTGAGATTGTAGCAACTGGAAAAAGAGGAGAAGGT
 GGAGGAGAAGGAGGCCAAAGAGAAGGCAGAGAAGGAGGTGCGCAGAGGTGAAGAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202855 representing NM_012318
 Red=Cloning site Green=Tags(s)

MASILLRSCRGRAPARLPPPPRYTVPRGSPGDPAPHLSCASTLGLRNCLNVFPGCCTPIHPVYTSSRGDHL
 GCWALRPECLRIVSRAPWTSTSVGFVAVGPQCLPVRGWHSRVRDSSVVEKSLKSLKDKNKKLEEGPV
 YSPPAEVVVKKSLGQRLDELKHYHGFRLWIDTKIAARMLWRILNGHSLTRRERRQFLRICADLFRLV
 PFLVVFVVPFMEFLLPVAVKLPNMLPSTFETQSLKEERLKKELRVKLELAKFLQDTIEEMALKNKAAG
 SATKDFSVFFQKIRETGERPSNEEIMRFSKLFEDELTDNLTRPQLVALCKLLELQSIGTNNFLRFQTM
 RLRISIKADDKLI AEEGVDLSLVKELQAACRARGMRALGVTEDRLRGQKQWLDLHLHQEIPITSLILSRA
 MYLPDTLSPADQLKSTLQTLPEIVAKEAQVKA VEVEGEQVDNKALEATLQEEAAIQQEHREKELQKRSE
 VAKDFEPERVVAAPQRPQTEPQPEMPDVLQSETLKDTAPVLEGLKEEITKEEIDILSDACSKLQEQKK
 SLTKEKEELELLKEDVDYSEDLQEIKKELSKTGEEKYVEESKASKRLTKRVQQMIGQIDGLISQLEMDQ
 QAGKLAPANGMPTGENVISVAELINAMKQVKHIPESKLSLAAALDENKDGKVNIDDLVKVIELVDKEDV
 HISTSQVAEIVATLEKEEKVEEKEKAKEKAEKEVAEVKS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2603_a04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012318

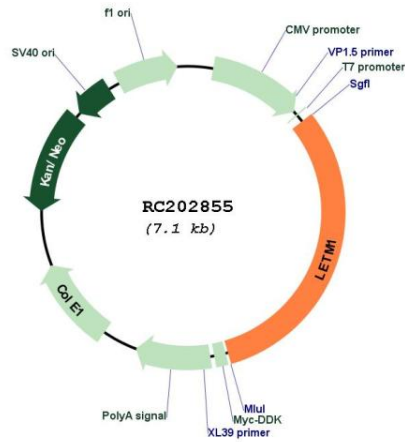
ORF Size: 2217 bp

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](#)

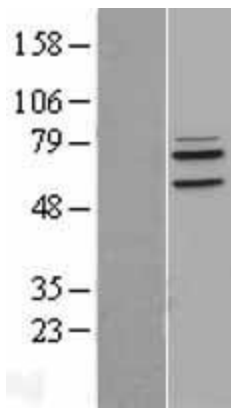
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_012318.1 , NP_036450.1
RefSeq Size:	3907 bp
RefSeq ORF:	2220 bp
Locus ID:	3954
UniProt ID:	O95202
Cytogenetics:	4p16.3
Protein Families:	Transmembrane
MW:	83.35 kDa
Gene Summary:	This gene encodes a protein that is localized to the inner mitochondrial membrane. The protein functions to maintain the mitochondrial tubular shapes and is required for normal mitochondrial morphology and cellular viability. Mutations in this gene cause Wolf-Hirschhorn syndrome, a complex malformation syndrome caused by the deletion of parts of the distal short arm of chromosome 4. Related pseudogenes have been identified on chromosomes 8, 15 and 19. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RC202855



Western blot validation of overexpression lysate (Cat# [LY402195]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202855 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).