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Product datasheet for RR202618

Letm1 (NM_001005884) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Letm1 (NM_001005884) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Letm1
Synonyms:	MGC94466
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR202618 representing NM_001005884
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGTCCATCTTGCTCAGGAGCTGCCGCGGCCGGGGGCCTGCCCGCCTCGCGTCGCCCCGGGCCGCTT
CCCCGCGGGGTAGTCTGAGGGATCGAGCTTGTCTCAGTTGTACCAGGACCGTGGGGTTGACGAGCCATGA
GAGTGTTCTGTCCCGCTGTTGTACTCCAGCCAACCCTGTGTACCTCTACTTCAAAAGTGAGCCCCTCAGC
TGTTGGACTCAGAGGCCTGAGTGCCAGGGCACCGTGGCAAGGGCAGCATGGACACCTGCCTCTGCGAGGT
TGGTTGTTACGGGACCTCAGTACCTTCCTGTGCGTGGCTGGCACTCATCATCCCCACTAGGAGAGGACTC
TATGATAGAGAAATCCCTTAAGTCTTTAAAGGACAAGAATAAGAAGCTGGAAGAAGGTGGCCCCGTGTAC
AGCCCGCCAGCTCAGGTGGTAGTGAAGAAGTCCCTGGGGCAGAAGATACTGGATGAGCTGAAGCACTACT
ACCATGGCTTCCGCCTGCTGTGGATCGACACCAAGATAGCCGCCCGTATGCTGTGGCGCATCCTGAATGG
CCATACGCTGACCCGCCGGGAGCGCAGGCAGTTTCTCCGGATTTGTGCAGACCTCTTCCGTCTAGTACCC
TTCCTGGTGTTCGTGGTGGTACCCTTCATGGAATTCCTGCTGCCTGTAGTTGTGAAGCTCTTCCCCAATA
TGCTGCCCTCCACATTTGAGACCCAGTCTATCAAGGAGGAAAGGCTGAAGAAGGAGCTTAGGGTGAAGCT
GGAGCTAGCCAAGTTTCTCCAAGACACCATAGAGGAAATGGCCCTGAAGAACAAGGCAGCCAAAGGGAAT
GCCACCAAGGATTTCTCTGCCTTTTTCCAGAAGATCCGGGAGACAGGGGAGAGACCCAGCAATGAAGAAA
TCATGCGTTTTTCCAAATTATTTGAGGATGAACTGACCCTGGATAACCTAACGAGGCCTCAACTGGTAGC
ACTGTGCAAGCTGCTGGAGCTTCAGTCCATTGGTACCAACAACTTCTTGCGTTTCCAGCTCACCATGCGG
CTGAGGTCTATAAAGGCTGATGATAAGCTGATTTCTGAGGAAGGGGTAGACAGTCTGACTGTGAAGGAAT
TGCAGGCAGCGTGTCGAGCACGGGGCATGCGAGCACTTGGTGTCACAGAAGACCGTCTGAAGGGCCAGCT
GAAACAGTGGCTGGACTTGCACCTGTATCACGAGATCCCTACATCATTGCTCATACTGTCCCGGGCCATG
TACCTCCCAGACACCCTCTCACCTGCCGACCAGCTGAAGTCCACCTTGCAGACCCTTCCAGAAATTGTGG
CAAAGGAGGCTCAGGTAAAAGCGGCTGAGGTGGAGGGCGAACAGGTAGACAACAAGGCGAAGCTGGAGGC
CACACTGCAGGAAGAGGCCGCCATCCAGCAGGAGCACCTGGAAGAACTAAAGAGAGCCGCTGAGACTGCG
AAGGACATCCAGCCAGAAGTAGCAGAAGCCACTGTCCCTGGGAGGCCAGGCGCCGAGCTTCAGCCCAAGA
TGGTTGATGTGATCCCGCCCTCAGAGATACTAAAGGATACAGCACCTGTTCTGGAAGGTTTGAAGGGAGA
AGAGATAACCAAGGAGGAAATTGACATCCTCAGTGACGCCTGCTCCAAGCTAAAGGAGCAGAAGAAGTCC
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AACGGCAAGCTGGACCCCGCTGCTGCGAGCTCTCCCACAGGGGAGAGTGTCATCAGCGTCGACGAGCTCA
TCAGCGCCATGAAGCAAATCAAGCACATTCCAGAACACAAGCTGATCAGTTTGACCTCAGCCCTGGATGA
AAATAAGGATGGCAATATCAACATCGATGATCTTGTTAAGGTAATCGACTTGGTGAACAAAGAAGATGTC
CAGATCTCTACCACCCAGGTAGCCGAGATTGTGGCCACACTAGAGAAGGAAGAAAAGGTGGAAGAGAAGG
AAAAGGCCAAGGAAAAGGCTGAGAAGGAGGCGGCAGAAGTGAAGAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

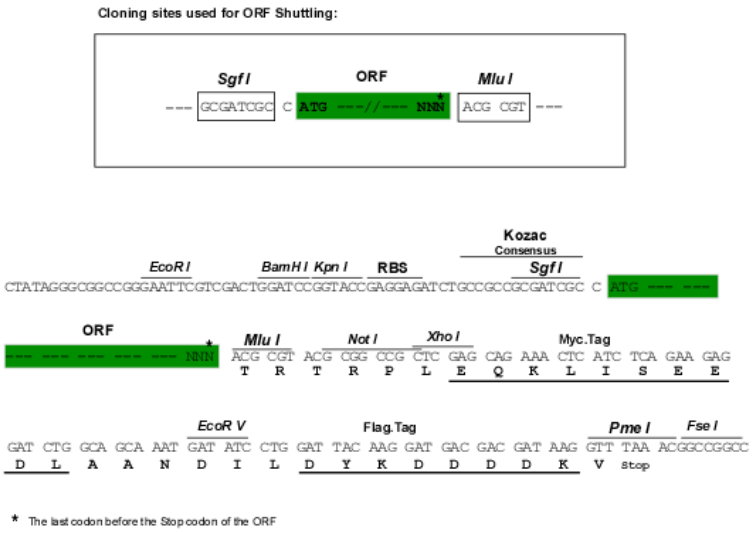
>RR202618 representing NM_001005884
Red=Cloning site Green=Tags(s)

MASILLRSCRGRGPARLASPRAASPRGSLRDRACLSCTRTVGLTSHESVLSRCCTPANPVYLYFKSEPLS
CWTQRPECQGTVARAAWTPASARLVVTGPQYLPVRGWHSSSPLGEDSMIEKSLKSLKDKNKKLEEGGPVY
SPPAQVVVKKSLGQKILDELKHYYHGFRLLWIDTKIAARMLWRILNGHTLTRRERRQFLRICADLFRLVP
FLVFVVVPFMEFLLPVVVKLFPNMLPSTFETQSIKEERLKKELRVKLELAKFLQDTIEEMALKNKAAKGN
ATKDFSAFFQKIRETGERPSNEEIMRFSKLFEDELTLDNLTRPQLVALCKLLELQSIGTNNFLRFQLTMR
LRSIKADDKLISEEGVDSLTVKELQAACRARGMRALGVTEDRLKGQLKQWLDLHLYHEIPTSLLILSRAM
YLPDTLSPADQLKSTLQTLPEIVAKEAQVKAAEVEGEQVDNKAKLEATLQEEAAIQQEHLEELKRAAETA
KDIQPEVAEATVPGRPGAELQPKMVDVIPPSEILKDTAPVLEGLKGEEITKEEIDILSDACSKLKEQKKS
LTKEKEELELLKEDVQDYSEDLQEIKKELSKTGDEKYIEESTASKRLSKRVQQMIGQIDGLITQLETTQQ
NGKLDPAAASSPTGESVISVDELISAMKQIKHIPEHKLISLTSALDENKDGNINIDDLVKVIDLVNKEDV
QISTTQVAEIVATLEKEEKVEEKEKAKEKAEKEAAEVKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001005884

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: 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_001005884.1, NP_001005884.1

RefSeq Size: 2589 bp

RefSeq ORF: 2220 bp

Locus ID: 305457

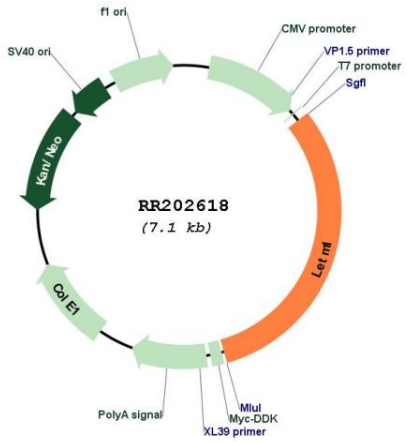
UniProt ID: Q5XIN6

Cytogenetics: 14q21

MW: 83.1 kDa

Gene Summary: Mitochondrial proton/calcium antiporter that mediates proton-dependent calcium efflux from mitochondrion (By similarity). Crucial for the maintenance of mitochondrial tubular networks and for the assembly of the supercomplexes of the respiratory chain (By similarity). Required for the maintenance of the tubular shape and cristae organization (By similarity). In contrast to SLC8B1/NCLX, does not constitute the major factor for mitochondrial calcium extrusion (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR202618