

## Product datasheet for MR231797

### Lmtk3 (NM\_001290990) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Lmtk3 (NM\_001290990) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Lmtk3  
**Synonyms:** aatyk3; BC059845  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR231797 representing NM\_001290990  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTGCACCCGGCGCACTCATCTCCTGGCGGCGTCTCCGCCTCCGGCTGCCTGGCGTCCCCAGCGC  
 ACCCGGATGGATTGCTCTGAGCCGGGCCCTTTGGCTCCGCCCTACGCTGTGGTCTCATTTCCTGTTC  
 GGGTCTGTGGCCTTCATCTTTCTCCTCTTACCTGTCTGTGTTGCAAACGGGGTATGTTCTGTTCAAG  
 GAGTTTGAGAACCCGGAAGGGGAGGACTGCTCTGGGGAGTACACCCCCCTGCGGAGGAGACCTCCTCCT  
 CACAGTCGCTGCCTGATGTCTATATTCTGCCGCTGGCAGAGGTCTCACTGCCAATGCCTGCCCGCAGCC  
 TCCACACTCAGACATCAGCACCCCTGGGCTGAGCCGCCAGCACCTCAGCTACCTGCAGGAGATTGGC  
 AGCGGCTGGTTTGGGAAGGTGATCTCGGGGAGGTTTTCTCAGACTACTCGCCAGCCAGGTGGTGGTGA  
 AGGAACTCCGGGCTAGTGCCGGGCCCTGGAACAGCGCAAGTTCATCTCCGAGGCTCAGCCCTACAGGAG  
 CCTGCAGCATCCCAACGTCTCCAGTGCCTGGGCGTCTGTGTGGAGACCTTGCCCTTCTGTTGATCATG  
 GAGTTCGCCAGCTGGGGACCTGAAGCGATACCTTCGGGCCAGCGCCACCTGAAGGCATGTCCCCTG  
 AACTTCCCCCTCGAGACCTTCGGACACTGCAGAGGATGGGTCTAGAGATTGCCGAGGACTGGCACACT  
 GCACTCTCACAACATATGTGCACAGCGATCTGGCGCTGCGCAACTGCCTGCTAACTTCAGACCTGACTGTG  
 CGTATTGGAGACTATGGGCTGGCGCACAGCAACTACAAGGAAGACTACTACCTGACACCCGAGCGCCTAT  
 GGGTGGCCTGCGCTGGCAGCGCCGAGCTGCTGGGCGAGCTGCACGGCAGCTTCGTGCTGGTAGATCA  
 AAGCCGGGAGAGTAATGTCTGGTCCCTGGGGGTGACACTCTGGGAGCTATTTCGAGTTCGGGGCACAGCCC  
 TATCGTCACTATCGGATGAGGAGGTCTGGCCTTTGTTGTCCGCCAGCAGCACGTGAAGCTGGCCCGGC  
 CCAGGCTCAAGCTGCCCTACGCTGACTATTGGTATGACATTTGCAGTCTTGCTGGCGGCCCCAGCCCA  
 GCGCCCTCAGCTTCTGATCTCCAGCTGCAGCTCACTTACCTGCTGTCTGAGCGGCCCCAGGCCCTCT  
 CCTCCACCACCCCTCCCGAGATGGGCCCTTCCCTGGCCCTGGCCCCCTCGCATAGTGGCCCGGCC  
 CAGGGACCCTGTCTCCAGTTCCTTCTGGATGGCTTCCCCGGGGCTGACCTGATGATGACTCAC  
 AGTCACCGAGAGCAGCCGTGGCCTCAACCTTGAGTGCCTGTGGGAGAAGGCCCGCTGGGGCAGGCCGG  
 GGTGGGGTGCACCTCCCTGGCAACCCGCTTCTGCGCCTCTGCGCCCATACCAATCCATCCAATCCCT



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TCTATGAGGCGCTGTCCACCCCTAGCGTGCTTCCGGTCATCAGCGCACGCAGTCCCTCGGTGAGCAGCGA  
GTAATAATCCGCCTGGAGGAGCACGGTCTCCACCAGAGCCCCTCTCCCAACGACTGGGACCCGCTG  
GACCCAGGAGTACCCGGTCCCAGGCCCCAGACTCCCTCCGAGGTCCCTCAGTGGTGTCCGAGACCT  
GGGCTTCCCCCTCTTCCCCGCGCCCCGACCTTCCCGGCCAGTCTCGGGATCAGGTGGTTTCTGTCT  
GAGCGGTGGGACCCCGAGGGCCGGGGCGCAGGAGAGACCCTGGCAGGAGATCCTGCCGAGGTGCTTGGG  
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AAGAAAGTCCCCAGCAGGAGCCTTCCAGTGAACGGGGTGCAGTGTGGAGAACGGGAAGCCAGGAGTCC  
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GCTGGAGAGGAAGCGCAAGATGGTCTCCTTCCACGGGGACGTGACCGTCTACCTTTCGACCAGGAGACT  
CCAACCAACGAGTTGAGCGTCCAGGGCACCCCGAGGGGGACACGGAGCCATCAACTCCCCAGCGCCCC  
CGACGCTCCCCACCCACCCAGGAGATGGGTTTCCCAACAGCGACAGCGGCTTGGCGGCAGTTT  
CGAGTGGGCGGAGATTCCCCCTCTCCCCCGCCAGGCCCCCCCTGTGCTTCTCCGCTTCTCCGTC  
TCACCTGCACTGGAGACCCCGGGCTCCCGCCGGGCTCCCGACGCCCGGCCGAGCCCCGTGGAGA  
AC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231797 representing NM\_001290990  
 Red=Cloning site Green=Tags(s)

MPAPGALILLA AVSASGCLASPAHPDGFALSRAPLAPPYAVVLI SC SGLLAFIFLLLTCLCCKRGDVRFK  
 EFENPEGEDCSGEYTPPAEETSSSQSLPDVYILPLAEVSLPMPAPQPPHSDISTPLGLSRQHL SYLQEIG  
 SGWFGKIVLGEVFDYSPAQVVVKELRASAGPLEQRKFI SEAQPYRSLQHPNVLQCLGVCVETLPFLIM  
 EFCQLGDLKRYLRAQRPPPEGMSPELPPRDLRTLQRMGLEIARGLAHLHSHNYVHSDLALRNCLLTSDLTV  
 RIGDYGLAHSNYKEDYILTPERLWVPLRWAAPPELLGELHGSFVLVDQSRESNVWSLGVTLWELFEFGAQP  
 YRHLSDDEVLA FVVRQQHVKLARPRKLKPYADYWDILQSCWRPPAQRPSASDLQLQLTYLLSERPPRP  
 PPPPPRDPGFPWPWPPSHSAPRPGTSSQFPLLDGFGADPDDVLTVTESSRGLNLECLWEKARRGAGR  
 GGGAPPWQPASAPPAPHTNPSNPFYEALSTPSVLPVISARSPVSSEYYIRLEE HGSPEPLFPNDWDPL  
 DPGVPGQPAPQTSEVPQLVSETWASPLFPAPRPFPAQSSGSGGFLLSGWDPEGRGAGETLAGDPAEVLG  
 EQGTAPWAE EEEEESSPGE DSSSLGGPSRRGPLPCPLCSREGPC SCLPLERGDVAVGWGDHPALGCPHP  
 PEDDSSLRAERGLADLPLVPPTSAPLEFLDPLMGAAAPQYPGRGPPAPPPPPPPRASAEPAA SPDP  
 SALASPGSGLSSPGPKPGDSGYETETPFSPGAFPGGAAEEEGVPRRAPPEPPDPGAPRPPDPGPLP  
 LPGSQEKPTFVVQVSTEQLLMSLREDVTKNLLGDKGSTGETGPRKAGRSPANREKGPGNRDLTSLVSR  
 KKVPSRSLPVNGVTVLENGKPGVPMKEKVAENGL ESPEKEERALVNGEPM SPEAGEKVLANGVLMSPKS  
 EEKVAENGLRRLPRNTERPEIGPRRVPGWEKTPETGGLAPETLLDRAPAPCEAALPQNGLEMAPQLG  
 PAPKSGNPDGTEWRVHESGGAPRAGAGKLDLGSGRALGGVGTAPAGGPASAVDAKAGWVDNSRPLPP  
 PPQPLGAQQRPEPVPLKARPEVAQEEEPGVPDNRGGDMAPSVD EDPKPERKGPMPRLFDLGPQ  
 NSEQIKAKLSRLSLALPPLTLTPFPGPGRPPWEGADAGAAGGEAGGAGAPGPAEEDGED EDEDEE  
 AAGSRDPGRTR EAPV VVSSADGTVRPLRGLLKS PRAAEPEDSELERKRMV SFHGDVTYVLF DQET  
 PTNELSVQGTPEGDTEPSTPPAPPTPPHPTTPGDGFPNSDSGFGGSFEWAEDFPLLPPPGLCF SRFSV  
 SPALETPPPARAPDARAPGVEN

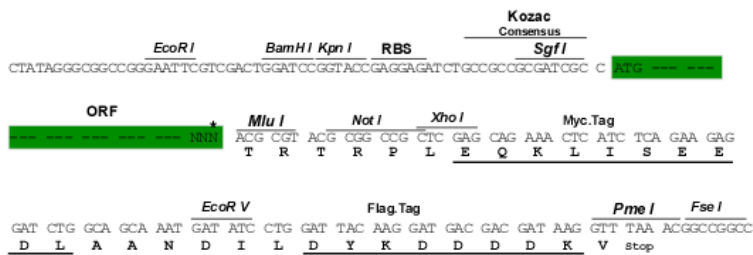
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

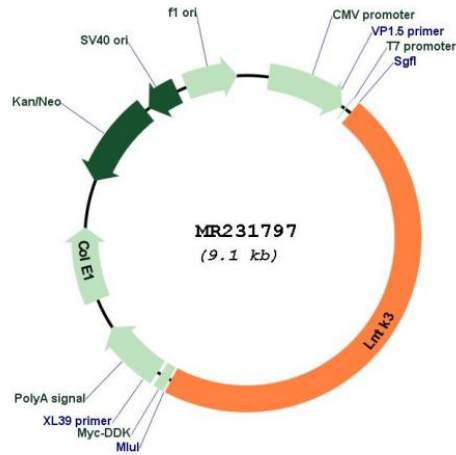
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001290990

**ORF Size:** 4272 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\\_001290990.2](#)

**RefSeq Size:** 5022 bp

**RefSeq ORF:** 4275 bp

**Locus ID:** 381983

**UniProt ID:** [Q5XJV6](#)

**Cytogenetics:** 7 B3

**MW:** 151.3 kDa

**Gene Summary:** Protein kinase which phosphorylates ESR1 (in vitro) and protects it against proteasomal degradation. May also regulate ESR1 levels indirectly via a PKC-AKT-FOXO3 pathway where it decreases the activity of PKC and the phosphorylation of AKT, thereby increasing binding of transcriptional activator FOXO3 to the ESR1 promoter and increasing ESR1 transcription (By similarity). Involved in endocytic trafficking of N-methyl-D-aspartate receptors (NMDAR) in neurons (PubMed:24760852).[UniProtKB/Swiss-Prot Function]