OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC203794

Lck (NM_010693) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lck (NM_010693) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Lck
Synonyms:	Hck-3; Lsk; Lskt; p56; p56Lck
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>BC011474
ACGACGGCGAGGGGAGCTGACACCGGGTCCAGGCAGCCAAGCCAGGCTAGGAGCATCATGTGAATAGGCC
AGAAGACTCCCAGGCTGGGCAGGGATCATGGGCTGTGTCTGCAGCTCAAACCCTGAAGATGACTGGATGG
AGAACATTGACGTGTGTGAAAACTGCCACTATCCCATAGTCCCGCTGGACAGCAAGATCTCGCTGCCCAT
CCGGAATGGCTCTGAAGTGCGGGACCCACTGGTCACCTATGAGGGATCTCTCCCACCAGCATCCCCGCTG
CAAGACAACCTGGTTATCGCCCTGCACAGTTATGAGCCCTCCCATGATGGAGACTTGGGCTTTGAGAAGG
GTGAACAGCTCCGAATCCTGGAGCAGAGCGGTGAGTGGTGGAAGGCTCAGTCCCTGACGACTGGCCAAGA
AGGCTTCATTCCCTTCAACTTCGTGGCGAAAGCAAACAGCCTGGAGCCTGAACCTTGGTTCTTCAAGAAT
CTGAGCCGTAAGGACGCCGAGCGGCAGCTTTTGGCGCCCGGGAACACGCATGGATCCTTCCTGATCCGGG
AAAGCGAAAGCACTGCGGGGTCCTTTTCCCTGTCGGTCAGAGACTTCGACCAGAACCAGGGAGAAGTGGT
GAAACATTACAAGATCCGTAACCTAGACAACGGTGGCTTCTACATCTCCCCTCGTATCACTTTTCCCGGA
TTGCACGATCTAGTCCGCCATTACACCAACGCCTCTGATGGGCTGTGCACAAAGTTGAGCCGTCCTTGCC
AGACTCAGAAGCCCCAGAAACCATGGTGGGAGGACGAATGGGAAGTTCCCAGGGAAACACTGAAGTTGGT
GGAGCGGCTGGGAGCTGGCCAGTTCGGGGAAGTGTGGATGGGGTACTACAACGGACACACGAAGGTGGCG
GTGAAGAGTCTGAAACAAGGGAGCATGTCCCCCGACGCCTTCCTGGCTGAGGCTAACCTCATGAAGCAGC
TGCAGCACCCGCGGCTAGTCCGGCTTTATGCAGTGGTCACCCAGGAACCCATCTACATCATCACGGAATA
CATGGAGAACGGGAGCCTAGTAGATTTTCTCAAGACTCCCTCGGGCATCAAGTTGAATGTCAACAAACTT
TTGGACATGGCAGCCCAGATTGCAGAGGGCATGGCGTTCATCGAAGAACAGAATTACATACATCGGGACC
TGCGCGCCGCCAACATCCTGGTGTCTGACACGCTGAGCTGCAAGATTGCAGACTTTGGCCTGGCGCGCCT
CATTGAGGACAATGAGTACACGGCCCGGGAGGGGGCCAAATTTCCCATTAAGTGGACAGCACCAGAAGCC
ATTAACTATGGGACCTTCACCATCAAGTCAGACGTGTGGTCCTTCGGGATCTTGCTTACAGAGATTGTCA
CCCACGGTCGAATCCCTTACCCAGGAATGACCAACCCTGAAGTCATTCAGAACCTGGAGAGAGGCTACCG
CATGGTGAGACCTGACAACTGTCCGGAAGAGCTGTACCACCTCATGATGCTGTGCTGGAAGGAGCGCCCA
GAGGACCGGCCCACGTTTGACTACCTTCGGAGTGTTCTGGATGACTTCTTCACAGCCACAGAGGGCCAGT
ACCAGCCCCAGCCTTGATAGGCCTTTCGGTCCCAAGATCCTCCCAACCACTGTGCCCTGGCTAGGGCAGA
TGGAATTCCTGTGCCATATCTGTGTGGCCTGTGCACACATGGACTCTGACTCTGTACATGAAACCTGTGC
GTGTGTCACACATAATGCAGTTTCTGTCTTGTACACACATCTGTAGTTATGTGGGTTCTACACATGTGTC
TTATACCTGTGGAGCACGTGAGTCTAAGCCTTGGATACCTCCTAAGATGTCTCTTCCTATACCGTTCCAT
TTCCTGAAGCCATAGAGAGGAGAAGGCCTGCGATTGATGCGTGTCTCTGTCTACCACTGCCTTTCAGAGG
GTCTCCAGGAAGGCCCTCCTTGTGGGCTGCCATCCAATCTTATGTCTCTGTGTGTTCTGTCCTGGTGCCT
AGCACACACCAGGAGCTCAATAAAAGTCTGTTGAATTAAGGTTGTAAAAAAAAAAAAAAAAAAAAAAAA AA

Restriction Sites: RsrII-NotI

ACCN: NM_010693

Insert Size: 1530 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	BC011474, AAH11474
RefSeq Size:	2102 bp
RefSeq ORF:	1530 bp
Locus ID:	16818
UniProt ID:	P06240
Cytogenetics:	4 63.26 cM
Gene Summary:	Non-receptor tyrosine-protein kinase that plays an essential role in the selection and maturation of developing T-cells in the thymus and in the function of mature T-cells. Plays a key role in T-cell antigen receptor (TCR)-linked signal transduction pathways. Constitutively associated with the cytoplasmic portions of the CD4 and CD8 surface receptors. Association of the TCR with a peptide antigen-bound MHC complex facilitates the interaction of CD4 and CD8 with MHC class II and class I molecules, respectively, thereby recruiting the associated LCK protein to the vicinity of the TCR/CD3 complex. LCK then phosphorylates tyrosine residues within the immunoreceptor tyrosine-based activation motifs (ITAM) of the cytoplasmic tails of the TCR-gamma chains and CD3 subunits, initiating the TCR/CD3 signaling pathway. Once stimulated, the TCR recruits the tyrosine kinase ZAP70, that becomes phosphorylated and activated by LCK. Following this, a large number of signaling molecules are recruited, ultimately leading to lymphokine production. LCK also contributes to signaling by other receptor molecules. Associates directly with the cytoplasmic tail of CD2, which leads to hyperphosphorylation and activation of LCK. Also plays a role in the IL2 receptor-linked signaling pathway that controls the T-cell proliferative response. Binding of IL2 to its receptor results in increased activity of LCK. Is expressed at all stages of thymocyte development and is required for the regulation of maturation events that are governed by both pre-TCR and mature alpha beta TCR. Phosphorylates other substrates including RUNX3, PTK2B/PYK2, the microtubule-associated protein MAPT, RHOH or TYROBP (By similarity). Interacts with UNC119; this interaction plays a crucial role in activation of LCK (By similarity). [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The encoded isoform (b) is shorter than isoform a. Both variants 2 and 3 encode the same isoform (b). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.