

Product datasheet for **SC108101**

MLKL (NM_152649) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MLKL (NM_152649) Human Untagged Clone
Tag:	Tag Free
Symbol:	MLKL
Synonyms:	hMLKL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_152649 edited
 ATGGAAAATTTGAAGCATATTATCACCCCTTGGCCAGGTCATCCACAAACGGTGTGAAGAG
 ATGAAATACTGCAAGAAACAGTGCCGGCCCTGGGCCACCGCGTCTCGGCCTGATCAAG
 CCTCTGGAGATGCTCCAGGACCAAGGAAAGAGGAGCGTGCCTCTGAGAAGTTAACCA
 GCCATGAACCGCTTCAAGGCTGCCCTGGAGGAGGCTAATGGGGAGATAGAAAAGTTCAAGC
 AATAGATCCAATATCTGCAGTTTCTAACAGCAAGCCAGGACAAAATACTCTTCAAGGAC
 GTGAACAGGAAGCTGAGTGATGTCTGGAAGGAGCTCTCGCTGTTACTTCAGGTTGAGCAA
 CGCATGCCTGTTTCAACCATAAGCCAAGGAGCGTCTGGGCACAGGAAGATCAGCAGGAT
 GCAGACGAAGACAGGCGAGCTTCCAGATGCTAAGAAGAGATAATGAAAAATAGAAGCT
 TCACTGAGACGATTAGAAATCAACATGAAAGAAATCAAGGAACTTTGAGGCAGTATTTA
 CCACAAAATGCATGCAGGAGATCCCGCAAGAGCAAATCAAGGAGATCAAGAAGGAGCAG
 CTTTCAGGATCCCGTGGATTCTGCTAAGGGAAAATGAAGTCAGCACACTTTATAAAGGA
 GAATACCACAGAGCTCCAGTGGCCATAAAAAGTATTCAAAAACTCCAGGCTGGCAGCATT
 GCAATAGTGAGGCAGACTTTCAATAAGGAGATCAAAACCATGAAGAAATTCGAATCTCCC
 AACATCTGCGTATATTTGGGATTTGCATTGATGAAACAGTGACTCCGCCTCAATTCTCC
 ATTGTCATGGAGTACTGTGAACCTCGGGACCCTGAGGGAGCTGTTGGATAGGGAAAAAGAC
 CTCACACTTGGCAAGCGCATGGTCCCTAGTCTGGGGCAGCCGAGGCCTATACCGGCTA
 CACCATTGAGAAGCACCTGAACTCCACGGAAAAATCAGAAGCTCAAACCTCCTGGTAACT
 CAAGGCTACCAAGTGAAGCTTGCAGGATTTGAGTTGAGGAAAACACAGACTTCCATGAGT
 TTGGGAACTACGAGAGAAAAGACAGACAGAGTCAAATCTACAGCATATCTCTCACCTCAG
 GAACTGGAAGATGTATTTTATCAATATGATGTAAAGTCTGAAATATACAGCTTTGGAATC
 GTCCTCTGGGAAATCGCCACTGGAGATATCCCCTTTCAAGGCTGTAACTGAGAAGATC
 CGCAAGCTGGTGGCTGTGAAGCGGCAGCAGGAGCCACTGGGTGAAGACTGCCCTTCAGAG
 CTGCGGGAGATCATTGATGAGTGCCGGGCCATGATCCCTCTGTGCGGCCCTCTGTGGAT
 GAAATCTTAAAGAACTCTCCACCTTTTCTAAGTAG



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5' Read Nucleotide Sequence: >OriGene 5' read for NM_152649 unedited
 CGGCAAAAACCTCGGCACGAGCCGGAGGGCACTGGTCAGAAAACAGCCATCCAATGGCTGA
 GTTGAGGGACCCTGCTCAAGTGCAGCTGCAGTGGCCGGGGTTTCCCTCAGGAGGCGGTGCG
 TGGGAAAGAAGGTGGAAGAGCGAGCTTTTTGAACTGTGCACGGGACAGATTGGACGCAC
 ACCCTTCGTGAGGCGCGAAGGCATGGAAAATTTGAAGCATATTATCACCTTGGCCAGGT
 CATCCACAAAACGGTGTGAAGAGATGAAATACTGCAAGAAAACAGTGCCGGCGCCTGGGCCA
 CCGCTCCTCGGCCTGATCAAGCCTCTGGAGATGCTCCAGGACCAAGGAAAGAGGAGCGT
 GCCCTCTGAGAAGTTAACACAGCCATGAACCGCTTCAAGGCTGCCCTGGAGGAGGCTAA
 TGGGGAGATAGAAAAGTTTCAAGCAATAGATCCAATATCTGCAGTTTCTAACAGCAAGCCA
 GGACAAAATACTTTCAAGGACGTGAACAGGAAGCTGAGTGATGTCTGGAAGGAGCTCTC
 GCTGTTACTTCAGGTTGAGCAACGCATGCCTGTTTACCATAAGCCAAGGAGCGTCTG
 NGCACAGGAAGATCAGCAGGATGCAGACGAAGACAGGCGAGCTTCCAGATGCTAAGAAG
 AGATAATGAAAAATAGAAGCTTACTGAGACGATTAGAAATCAACATGAAAGAAATCAA
 GAAAACCTTGGAGCAGTATTTACCACAAAATGCATGCANGAGATCCCGNCAGAGCANAT
 CAAGGAGATCAAGAAGGAGCAGCTTTTCCAGATCCCGTGGATTCTGCTAAGGGGAAATGA
 AGTCAGCACACTTTATAAAGGAGAATACCACAGAGCTTCAGTGGCCATAAAGTATTCAA
 AACTCC

3' Read Nucleotide Sequence: >OriGene 3' read for NM_152649 unedited
 GGGCAATTTTCGGGTTGTTGATTCATCTCTGGATGTGTAGATGGGCAATTTGGGCTGGG
 ATCTGCTTTAGTGGTTCTTCTGGTCTTGATTGGCCTCATTTCATGTGTTACCTGCCATGTT
 GGTGGGCTACTATGACTTGGCCTAGGAAAGCATGTTTCTGCTTCATGTGGTCTCTCATT
 CTCCAGCATGCTCGCTCAACATGTTTCATGGCTGGTTTTTTGTTTTAACACACATTTATTAT
 GCCTCAGGAAACCCACGCTTGGGACGTGGGCTACAGTCACTTCATCCACATACCATTGAT
 ACAAATCAAGTCACAGCGCTGCCCGGCTTCTAATGGTTGGTGAATAGACTTCATTTA
 TACAAGTCCGTAACCTGCTATTCCATTGTTAAGGAGTGTGTATGCACCGGATGAAGCATT
 GGAGAGAGCATCTCGCACACTTAGTGTGCAAAAGTCTGGTGTGGCGATACAACCTGGGCT
 GGGATGTGAAGTGATAAAATAAAAAGATAATATCATCAAAAAGAAACCCAGGACACCGCA
 CGATCGATAGAACAAACGGGGCGCAGAGCTGAGGGAACCAACCAACAAATCCCAACAC
 TACTGCATGAGCTCGGCGAGCCGACCCGCGCCGCTGGCCGAGCCGGCCGGGCGCCGGGG
 GAGGCAGGAATCGGACGATGCGCCAGCGACCAACAGCAAGACCTCCCCCTACACACCCC
 AGCGGGGCACGCGGGGCAGAGACTTCATCTGGCCACGTCCACACTTCACCCACCAGCGAA
 ACGCCACATCGCGAACCCCGCCGCGGACGGGAAAGGGGAGGAAAGGCGGGGGGAC
 GGGCGTTCAAGGCGGACCGATGCGCCACCACGGGCGACGACCGGCGCCCG

Restriction Sites: NotI-NotI
ACCN: NM_152649
Insert Size: 2500 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_152649.1](#), [NP_689862.1](#)

RefSeq Size: 2496 bp

RefSeq ORF: 1416 bp

Locus ID: 197259

UniProt ID: [Q8NB16](#)

Cytogenetics: 16q23.1

Domains: pkinase

Protein Families: Druggable Genome, Protein Kinase

Gene Summary: This gene belongs to the protein kinase superfamily. The encoded protein contains a protein kinase-like domain; however, is thought to be inactive because it lacks several residues required for activity. This protein plays a critical role in tumor necrosis factor (TNF)-induced necroptosis, a programmed cell death process, via interaction with receptor-interacting protein 3 (RIP3), which is a key signaling molecule in necroptosis pathway. Inhibitor studies and knockdown of this gene inhibited TNF-induced necrosis. High levels of this protein and RIP3 are associated with inflammatory bowel disease in children. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Sep 2015]
Transcript Variant: This variant (1, also known as MLKLshRNA-A) represents the longer transcript and encodes the longer isoform (1).