

Product datasheet for **RG216168**

MLK4 (MAP3K21) (NM_032435) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MLK4 (MAP3K21) (NM_032435) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MAP3K21
Synonyms:	dj862P8.3; MLK4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216168 representing NM_032435 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTTTGCGGGGCGCCGCGGGAGCGACCCCGGTGTCCTCGGCCGGGGAGCCCCGGCGGCT
CAGCGTCTCGTCGTCCACCTCCTCGGGCGGCTCGGCCTCGGCCGGCGCGGGGCTGTGGGCCGCGCTCTA
TGACTACGAGGCTCGCGGCGAGGACGAGCTGAGCCTCGGCCGCGCCAGCTGGTGGAGGTGCTGTCGCAG
GACGCCCGGTGTCGGGCGACGAGGGCTGGTGGCAGGCCAGGTGCAGCGCGCCCTCGGCATCTTCCCCG
CCAACACTAGTGGCTCCCTGCCGCCGCGCCAGCCCCGCGCCGCCCTCGCGGCCAGCTCCCCGGT
ACACGTCGCCTTCGAGCGGCTGGAGCTGAAGGAGCTCATCGGCCGCTGGGGGCTTCGGGCAGGTGTACCGC
GCCACCTGGCAGGGCCAGGAGGTGGCCGTGAAGGCGGCGCGCCAGGACCCGGAGCAGGACGCGGGCGCGG
CTGCCGAGAGCGTGCAGCGCAGGCTCGGCTCTTCGCCATGCTGCGGCACCCCAACATCATCGAGCTGCG
CGGCGTGTGCCTGCAGCAGCCGACCTCTGCCTGGTGTGGAGTTCGCCCGCGCGGAGCGCTCAACCGA
GCGCTGGCCGCTGCCAACGCCGCCCGGACCCGCGCGCGCCCGGCCCGCGCGCGCCGATCCCTC
CGCACGTGCTGGTCAACTGGGCCGTGCAGATAGCGCGGGGATGCTCTACCTGCATGAGGAGGCCTTCGT
GCCCATCTGCACCGGACCTCAAGTCCAGCAACATTTTGCTACTTGAGAAGATAGAACATGATGACATC
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CTGGAGCTATGGAGTGTGCTGTGGAACTGCTCACCGGAGAAGTCCCCTATCGGGGCATTGATGGCCTC
GCCGTGGCTTATGGGTTAGCAGTCAATAAACTCACTTTGCCATTCCATCCACCTGCCCTGAGCCGTTTG
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CCCAAGGTAAAGAAGAGGAAGGGCAAGTTAAGAGAAGTCGTTTAAAGCTCAAAGATGGACATCGAATCA
GTTTACCTTCAGATTTCCAGCACAAAGATAACCGTGCAGGCCTCTCCCACTTGGACAAACGGCGGAGCCT
GAACAGCAGCAGTTCAGTCCCCGAGCAGCCCCACAATGATGCCCGACTCCGAGCCATACAGTTGACT
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TCAGGCTTACCCACAGACAGCAGTGTCTCAGCTGGCACAGACTGCCTGTGTAGTGGGTGCCCCAGGACCA
CATCCCACCAATTCTCTCGTGCCTAAGGAGAGAATAAATCCCATGTGCCTTCTTACTGGATGCTGACG
TGAAGGTCAGAGCAGGGACTACACTGTGCCACTGTGCAGAATGAGGAGCAAACCCAGCCGCCATCTAT
ATATGAAGTGGAGAAAGAATTCTGTCT
    
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG216168 representing NM_032435
 Red=Cloning site Green=Tags(s)

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MALRGAAGATDTPVSSAGGAPGSSASSSTSSGGSASAGAGLWAALYDYEARGEDEL SLRRGQLVEVLSQ
DAAVSGDEGWAGVQVRRRLGIFPANYVAPCRPAASPAPPPSRPSSPVHVAFERLELKEIGAGGFQVYR
ATWQGGQEVAVKAAARQDPEQDAAAAAESVRREARLFAMLRHPNIIELRGVCLQQPHLCLVLEFARGGALNR
ALAAANAAPDRAPGPRRARRIPPHVLVNWAVQIARGMLYLHEEAFVPIIHRDLKSSNILLLEKIEHDDI
CNKTLKITDFGLAREWHRTTKMSTAGTYAWMAPEVIKSSLSFKGSDIWSYGVLLWELLTGEVPHYRIGDGL
AVAYGVAVNKL TLPSTCPEPFKLMKECWQDPHIRPSFALILEQLTAIEGAVMTEMPQESFHSMQDD
WKLEIQQMFDELRTKEKELRSREEEL TRAALQQKSQEELLKRREQLAEREIDVLERELNILIFQLNQEK
PKVKKRKGKFKRSRLKLDGHRISLPSDFQHKITVQASPNLDKRRSLNSSSSPSSPTMMPRLRAIQLT
SDESNKTWGRNTVFRQEEFEDVKRNFKKKGCTWGPNSIQMKDRTDCKERIRPLSDGNPSTILIKNQKT
MPLASLFDVDPGSCEEPKLSPDGLEHRKPKQIKLPSQAYIDLPLGKDAQRENPAEAEESWEEAASANAATV
SIEMTPTNSLSRSPQRKKTESALYGCTVLLASVALGLDLRELHKAQAAEEPLPKEEKKKREGIFQRASKS
RRSASPPTSLPSTCGEASSPPLPLSSALGILSTPSFSTKCLLQMDSEDPLVDSAPVTCDEMLTPDFCP
TAPGSGREPALMPRLDTCVSRNLPSSFLQQTGPNVPCASSKHRPSSHRRRTMSDGNPTPTGATIIISAT
GASALPLCPSAPHSHLPREVSPKKHSTVHIIVPQRRPASLRSRSDLPQAYPQTAVSQAQTACVVGRRPGP
HPTQFLAAKERTKSHVPSLLDADVEGQSRDYTVPLCRMRSKTSRPSIYELEKEFLS
    
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TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

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](#)

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_032435.3](#)

RefSeq Size: 4667 bp

RefSeq ORF: 3111 bp

Locus ID: 84451

UniProt ID: [Q5TCX8](#)

Cytogenetics: 1q42.2

Protein Families: Druggable Genome, Protein Kinase

Gene Summary: Negative regulator of TLR4 signaling. Does not activate JNK1/MAPK8 pathway, p38/MAPK14, nor ERK2/MAPK1 pathways.[UniProtKB/Swiss-Prot Function]