

Product datasheet for **MG211784**

Ttll4 (NM_001014974) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ttll4 (NM_001014974) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Ttll4
Synonyms: 4632407P03Rik; AI451681; mKIAA0173
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG211784 representing NM_001014974
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGATCGCC

ATGGCCTCAGCAGGAACAGAGCACTACAGTATTGGCCTGCGCCGAGGAAACAGCTTCAAGCAGAGACATC
 CCTCAGGCACAGTGTCTGCTTACCATCTGAGAAACCCTCGGAGGTCAAAGTCTGGTCTCAGGCCCATCA
 GCAGGTGAAGCAATCTGAAACTGGAAAAGAAGCACGTAGGCACACTGTCAGCAGGGCTGGGCACCAGT
 TTCTTGGGAGTCCCATCCAGCCAGCCTATTTCTTTGCCCTAGCACTTTATGTAGCTCTGGACCACAG
 CAGTCATTGCAGGCCACAGCAACCCTGTTACCTGCAGTCCCTCCCTAACTTGTTCAGCAATACTCTGCT
 GTACCGCCGACCAACGTGAGGCAAAAACCATACCAGCAACTGGAATCTTTCTGCTTGCCTCCAGCCCT
 TCAGAGAAAAGATCTTTTTCTCTCCCTCAGAAAGGCTTCTCTGTCACTGTCCTGCAATAAAGCCACAT
 CTTCTACAGTCTTCCCCATGGCCAGCCCATGGCAACTTCACTGATCCATACCTCTCACTGGCAGC
 AGCTGGGGAGAACCCTTCAAGGAAGAGCCTGGCCTCTGCTATCTCAGGGAAGATTGCATCTCCACTGTCC
 TATAAGCCCATGCTGAACAACAACCTCCTCATGAGGCCAATAGCACTAAAGTGCCTTATCACAAGCCA
 CAGATGGCCTGAAGCCAGTATCCTCACCAAGATCCAGCCTGTCTCATGGCATCATTAGGGGGTACTGG
 GGACTGTGTACCCCAACCTGGTGACCATAAGGTGCCCAAAACATTGCTACTGTCTTAGATGATGTCCT
 GCCCATACCCCATCTATCCCTAGCACCCCTCAACATATCCACAGCCAGTGTACCTCTCCAGTGCA
 GTCAGAGTAACTTTAGGATGGAGGCACATCCCTGTGGCCTGGATGAAAACCCGGATTCCCAGAGTGCTAC
 TAAAGAGGTACACTTCACTGAGGCTGTGAGGAAGTTGGCTGAAAAAGGCTTGGAGAAGATGCCACGACAA
 GGCTACCAGTTTGAACAGGCTTGTTTTGTGAACCCAGCTTCCAGTGGGGTCTTCTCAACAGAAGCAGGC
 GGTGGAACCTCTGATGGCCAGCGTTTCTCAGGAGGATATTGGATTAGACAGTGCATCCTTCTCTGG
 TACTTCAGACACCTTGGGGTTGGACAGCACAGTCTTCTGTACCAAGAGGATCAGCATTACCTCCTTGGC
 TCACATGCCATGGGCTCAATCCCAGCCCTGCCTGTGGGTCTGCAGTTGACCCCAAGTACTTGGAGAAG
 ACAGAGCTCCTGTCCCCCTTCTCCCTCAGCCTCTTGGTGTAGCTGAAGTGGCCACTCGTCTTCTCTC
 TGTCATCTTGACCAGCCTGGGAAGGAGCCTGAGGAAGCAAGGACCTGAACTCTTGTACTAAGGGTGGT



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GGTTCAGCTACTGACCTCCAGCCAAACCAGGTGGAGCCTGAAGATACAGAAGATGAACTGGGAGATGGTT
TGGAAGATAGCTGCAGCCATGATGAGAATGAAGAAGAGGAAGGAGACTCAGAGTGCCTCTTCTTAAAGTGT
TGCTCCCCCAGCGAGTCAGTGGCATTAAATCTCGGAACTGTGTGGATTTGATGTCCAAATCCCTTCCC
AATCATGAGAAAGTTGTACGGCCAGCCCTCATCTACAGTCTCTTCCCAATGTAACCCCTACCATCTATT
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AACTCTCCTCTGGACATCAGCATCAAAGGCCAGATGATCCGAGACCTTCTGAACCTGGCTGGCTTTGTTC
TGCCCAACATGGAGGATATCATCTCTAGTTCCAGCAGCCCAGCAGCTCCAGCGGCTCCAGCACCAGCTT
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ACACGGGGATTGTCTCTGACTCAGCCCCACTGTGGTCTCTGCCAACATCGCTCATGACTACCTCAAAGGG
TGATGGGACACCAAATCCGCCAGCAAGTCACGAAAGAAGAGCGCCTCTGAGGGAACCACACTGCCTCT
GAAGACAGGTCAACACCCAAGTCTAAGAAGAGTCAAGCTGGCCTGTCTCCATATCCAGGAAGACTTTGT
CCTCAAGGAGCAATGAGAACACCAGCAAACAGTCCAAGCGCTCTACCCCGGGTTACCTGTCTCAAGTA
CTCTGGGCAGAGTTCAGACTTTCTGCTGCTTCTGCTTCCAGTCAGTCACTGACTCCCCTTGACTGCT
GTGAGCTCG

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG211784 representing NM_001014974
 Red=Cloning site Green=Tags(s)

MASAGTEHYSIGLRRGNSFKQRHPSGTVSASPSEKPESEVKVWSQAHQVVKPIWKLEKKHVGTL SAGLGTS
 FLGVPSQPAYFLCPSTLCSSGTTAVIAGHSNPCYLQSLPNLFSNTLLYRRTNVRQKPYQQLSFCLRSSP
 SEKRSFSLPQKGLPVSVTANKATSSTVFPMAQPMATSPTDPYLSLAAAGENPSRKSASAI SGKIASPLS
 YKPLMLNNSFMFPNSTKVPLSQATDGLKPVSSPKIQPVSWHHSGGTGDCVPQPGDHKVPQNIATVLDLDDVT
 APITPSIPSTLNI STASVTSSQCSQSNFRMEAHPCGLDENPDSQSATKEVHFTEAVRKLAEKGLEKMPRQ
 GYQFEQACFVNP SFQWGLLNRSRRWKPLMGQRFQEDIGLDSAILPGTSDTLGLDSTVFCTKRISIHLLA
 SHVHGLNPSACGSAVDPPQVLGEDRAPVPPSSLQPLGVAEVATRLSSVHLDQPGKEPEEAKDLNSCTKGG
 GSATDLQPNQVEPEDTEDELGDGLEDSCSHDENEEEEEGDSECSLSVSPSEVALISRNCVDLMSKSLP
 NHEKVVRPALIYSLFPNVTPTIYFGTRDERVEKLPWEQRLLRWKMSVTPNIVKQTIGRSHFKISKRND
 DWLGCWGHMKS PGRSIREHQKLNHFPGSFQIGRKDRLWRNLSRMQSRFGKKEFSFFPQSFILPQDSKL
 LRKAWESSRQKWIWKPPASARGIGIQVIHKWSQLPKRRPLL VQRYLHKPYLISGSKFDLRIYVYVTSYD
 PLRIYLFSDGLVRFASCKYSPSMKSLSNKFMHL TNYSVNKKNTEYQANADETACQGHKWKALKWNYLSQ
 KGINSDAIWEKIKDVVVKTIISSEPYVTNLLKLYVRRPYSCHELF GFDIMLDENLKPWVLEVNISP LHS
 NSPLDISIKGMIRDLLNLAGFVLPNMEIISSSSSSPSSSSSGSSTSLPSSPRDKCQMTPEHFTAQMKKA
 YYLTQKIPDQDFYASVLDVLT PDDVRVL VEMEDEF SRRGQFERIFPSRISSRYLRFEEQPRYFNILTTQW
 EQKYHGNKLGVDLLRNWCYKGFHTGIVSDSAPLWLSLPTSLMTTSKGDGTPNSASKSRKKSASEGTTLS
 EDRSTPKSKKSQAGLSPISRKTLSSRSNENTSKQSKRSTPGLPVLKYSQGSSRLSAASASQSVTDSRLTA
 VSS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001014974

ORF Size: 3579 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](#)

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_001014974.2](#)

RefSeq Size: 4341 bp

RefSeq ORF: 3582 bp

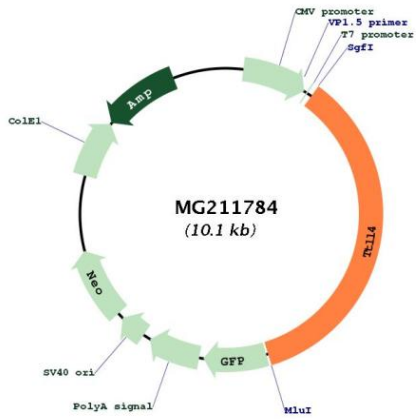
Locus ID: 67534

UniProt ID: [Q80UG8](#)

Cytogenetics: 1 C4

Gene Summary: Glutamylase which preferentially modifies beta-tubulin and non-tubulin proteins, such as NAP1L1, NAP1L4 and CGAS (PubMed:17499049, PubMed:21074048, PubMed:20530212). Involved in the side-chain initiation step of the polyglutamylation reaction rather than in the elongation step (PubMed:17499049, PubMed:21074048). Involved in formation of short side-chains (PubMed:20530212). Mediates initiation of polyglutamylation of nucleosome assembly proteins NAP1L1 and NAP1L4 (PubMed:17499049). Also acts as a monoglutamylase: generates monoglutamylated CGAS, leading to impair the nucleotidyltransferase activity of CGAS (PubMed:26829768).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG211784