

## Product datasheet for SC114928

### TLL4 (NM\_014640) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TLL4 (NM_014640) Human Untagged Clone
Tag:	Tag Free
Symbol:	TLL4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC114928 sequence for NM_014640 edited (data generated by NextGen Sequencing)

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ATGGCCTCAGCAGGAACACAGCACTATAGTATTGGCCTCCGCCAGAAAAACAGCTTCAAG
CAGAGTGGTCCCTCAGGCACAGTACCTGCCACGCCACCTGAGAAAACCTCGGAGGGCAGA
GTCTGGCCTCAGGCCATCAGCAAGTGAAGCCAATCTGGAAGCTGGAAAAAGCAAGTGA
GAGACTGTGACAGGGTTGGGCCAGGCCTCTTGGGCGTCCCACCCAGCCAGCATAT
TTCTTTTGGCCAGCACTTTATGTAGCTCTGGGACCAGGCTGTCTTGCAGGCCACAGC
AGTTCTGTACCTACACTCTCTCCGGACTTGTCAACAGCACCTGTATACCGCCG
TCCAGCTATAGGCAAAAACCGTACCAGCAACTGGAGTCTTTCTGCTTGCCTCGAGCCG
TCAGAAAAAGCCCTTTTCTCTCCCTAAAAGAGCCTCCCTGTGAGTCTCACTGCCAAC
AAGGCCACTTCTCCATGGTCTTCTCCATGGCCAGCCATGGCCTCCTCATCCACAGAA
CCATACCTCTGCTTGGCAGCGGCTGGGGAAAACCTTCAGGGAAGAGCCTGGCCTCTGCC
ATCTCAGGGAAGATCCCCTCTCCACTCTTCTCCTATAAGCCATGCTGAATAATAAT
TCCTTCATGTGGCCAAATAGCACGCCAGTGCCTTATTGACAGCACACAGGGCCTGAAG
CCAGTATCGCCACCCAAGATCCAGCCTGTCTCCTGGCATCATTAGGGGGTACTGGAGAC
TGTGCACCGCAGCCTGTTGACATAAAGGTGCCAAAAGCATTGGCACTGTCCAGCTGAT
GCCAGTGCCCATATCGCCTTGTCTACCGCTAGCTCCCACGACACATCCACCACAGTGT
GCCTCTTCTGTTATAACCGGAATAACTTAGCCATGAGGGCAGAGCCACTTCTGTGCT
CTGGATGACAGCTCTGATTCCCAGGATCCAATAAGGAGATTCGGTTCAGTGGCCGCTG
AGGAAATTGACCCCAAGAGGCTTTGAGAAGATGCCGAGGCAAGGCTGCCAGCTTGAACAG
TCTAGTTTCTGAACCCAGCTTCCAGTGGAAATGTCTCAACAGGAGCAGGCGGTGGAAA
CCTCCTGCGGTAATCAGCAGTTTCTCAGGAGGATGCTGGATCGGTGAGGCGGGTCTCT
CCTGGTGCCTCAGATACCTTGGGGTTGGACAATACAGTCTTGTACCAAGCGTATCAGC
ATTACCTCCTTGCTCATGCCAGTGGGCTCAATCACAAACCTGCCTGTGAATCTGTA
ATTGACTCCTCAGCATTGGAGAAGGCAAAGCTCCAGGTCCCCCTTTCTCAAACCTCTT
GGCATAGCCAACGTGGCCACCCGCTCTTCCATCCAGCTGGCCAGTCTGAGAAGGAG
AGACTGAGGAGGCCAGGGAGCTGGACTCATCTGATAGGGATATTAGTTACAGTACTGAC
CTCCAGCCAGATCAGGCTGAGACTGAAGATACAGAAGAAGAACTAGTAGATGGTTTGAA
GACTGTTGTAGCCGTGATGAGAATGAAGAGGAGGAGGAGACTCAGAGTGCTCCTCATTA

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AGTGCTGTCTCCCCAGCGAATCGGTGGCCATGATCTCTAGAAGCTGTATGGAAATTCTG
ACCAAACCCCTTTCCAATCATGAGAAAGTTGTCCGACCAGCCCTCATCTACAGTCTCTTT
CCCAACGTTCCCCCTACCATCTATTTTGGCACTCGGGATGAGAGAGTGGAGAAACTTCCC
TGGGAACAGAGGAAGTTGCTCCGATGGAAGATGAGCACAGTGACCCCAACATTGTCAAG
CAGACCATTGGACGGTCCCATTCAAAATCAGCAAAAAGAAACGATGACTGGCTGGCTGC
TGGGGTCAACCACATGAAGTCTCCTAGTTTCCGATCCATTGAGAGCATCAGAAGCTAAAC
CATTTCACAGGCTCATTCCAGATTGGGAGGAAGGACCGGCTATGGCGGAACCTGTACGT
ATGCAGAGCCGCTTTGGCAAGAAGGAGTTCAGTTTCTTCCCCAGTCTTTATCCTGCC
CAGGACGCCAAGCTCCTGCGCAAAGCGTGGGAGAGCAGCAGCCGCCAAAAGTGGATTGTG
AAGCCACCAGCATCAGCTCGAGGCATTGGCATCCAGGTTATTCACAAGTGGAGTCAGCTC
CCCAAGCGAAGGCCCTCCTGGTACAGAGGTATCTACACAAACCTACCTCATCAGCGGC
AGCAAGTTTGACCTGCGGATCTATGTTTATGTCACCTTCTACGATCCTCTGCGGATTTAC
CTCTTTTCAGATGGACTGGTCCGCTTTGCCAGTTGCAAGTATTCGCTTCCATGAAGAGC
CTTGGCAATAAGTTCATGCACCTGACCAACTACAGTGCAATAAAAAGAATGCCGAGTAC
CAGGCCAATGCAGATGAAATGGCTTGCCAGGGCCACAAATGGGCACTGAAGGCTTTGTGG
AACTACCTGAGCCAGAAGGGAGTCAATAGCGACGCCATCTGGGAGAAGATAAAGGATGTT
GTTGTCAAAACTATCATCTCGTCAGAGCCCTATGTGACCAGCCTGCTCAAGATGTATGTG
CGACGGCCCTATAGCTGCCATGAACTCTTTGGTTTTGACATCATGCTAGACGAAAACCTC
AAGCCCTGGGTCTGGAAGTCAACATTTCCCAAGCCTCCACTCCAGCTCTCCACTGGAT
ATCAGCATCAAAGGCCAGATGATTCGTGACCTTCTGAATCTGGCAGGTTTTGTCTGCC
AATGCAGAGGATATCATTCCAGCCCCAGCAGCTGCAGCAGCTCCACCACCAGCTGCC
ACCTCCCCTGGGACAAAATGTCGAATGGCTCCAGAGCATGTCAGTGCACAGAAGATGAAG
AAAGCCTATTATCTGACCAGAAAATTCCTGATCAGGACTTCTATGCATCTGTGCTGGAT
GTCCTGACACCAGATGATGTTCCGATTCTGGTTGAGATGGAAGATGAGTTTTCTCGCCGT
GGTCAGTTTGAACGAATTTTTCTTCTCATATCTCCTCTCGCTATCTCCGCTTTTTTGAG
CAGCCACGATATTTCAACATTCTCACCACCAATGGGAACAGAAATACCATGGCAACAAG
CTTAAAGGAGTAGATCTGCTCCGGAGTTGGTGCTACAAAGGGTTCCACATGGGAGTTGTC
TCTGATTCTGCTCCAGTGTGGTCTCTCCCGACATCACTTCTGACTATCTCAAAGGATGAC
GTGATACTCAATGCCTTCAGCAAATCAGAGACTAGCAAGCTGGGAAAACAAAGCTCCTGT
GAGGTTAGCCTACTACTCTGAAAGACGGGACCACGCCAAAATCCAAGAAGACTCAAGCT
GGCCTTTCCCCTATCCCAGAAAACCCAGTTTCTCAAAGGACAGTGAGGACACCAGCAA
GAGCCACGCTTTCTACCCAGACGTTACCTGTGATCAAGTGCTCTGGGCAGACTTCAAGA
CTTTCTGCTTCTCCACTTTCCAGTCAATCAGTACTCCCTCCTGGCTGTGAGCCATAA
    
```

Clone variation with respect to NM\_014640.4

**5' Read Nucleotide Sequence:**

```

>OriGene 5' read for NM_014640 unedited
AGTATTTTGTAAATACGACTCACTTATAGGGCGGCCGATTCGGCACCAGGCCGGTAGC
CCAGCAGGCCGAGGGAGGAAGTAGCGTGGAGCCGGTGCCGAGCCGGGGCGAAGCTGGATC
CCCTAGACTGACAGACTTCAAGGATGCAGCTGCTACTACCGGAGGTGTGTGGCACCTTAC
CTCAGCAAGGCCATGAGACCGTGTGGCCATGATGTGGGCCCTCATGGCCTCAGCAGGAA
CACAGCACTATAGTATTGGCCTCCGCCAGAAAACAGCTTCAAGCAGAGTGGTCCCTCAG
GCACAGTACCTGCCACGCCACCTGAGAAACCTCGGAGGGCAGAGTCTGGCCTCAGGCC
ATCAGCAAAGTGAAGCCAATCTGGAAGCTGGAAAAGAAGCAAGTGGAGACTGTGACAGCAG
GGTTGGGCCAGGCCCTTTGGGCGTCCCACCCAGCCAGCATATTTCTTTGGCCAGCA
CTTTATGTAGCTCTGGGACCACGGTGTATTGCAGGCCACAGCAGTTCCTGTTACTACT
ACTCTCTCCCGACTTGTCAACAGCACCTGCTATACCGCCGCTCCAGCTATAGGCAAA
AACCGTACCAGCAACTGGAGTCTTTCTGCTTGCCTTCGAGCCCGTCAGAAAAAAGCCCTT
TTTCTCTCCCTCAAAGAGCCTCCCTGTGAGTCTCACTGCCAACAAAGGCCACTTCTTCCA
TGGTCTTCTCCATGGCCAGCCATGGNCTNCTCATCCACAGAACCATACTCTGCTTGG
CAGCGGCTGGNAAAACCTTCAGGNAAGAGCTGGCCTCTGCTCTCAGGNAAGACCCATC
TCACTCTCTTCTCTANAAGCCATGCTGAATATAATCCTTCAGTGGCCAATACACGCCAG
GCCTTTATGCAGACACCAGGCTGAGCCAGTATCGCACCAGACCAN
    
```

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_014640 unedited  
 NCCTTCTAGTCCGGGCCGATTCTAGGATCGAGTTTTTTTTTTTTTTTTTTAAGGTAGAA  
 AACCAAAACCTGCTTTATAAGGCTGCGTGGCCACCACTGGCTTCTCTGCTGAGATATGAG  
 GTGCCAGCCAGGCAGACAGGTGACAGAGGGTGACCCTTCCCTCACCTTCTCCCCATCACTA  
 CCATCCCTCCGGGCTACAAATACCCATCTCTATAATGCAACCACTTCAAAAAATACTCT  
 GACGAGGGACAGGGGAAAGGGGCAGGGGTCATACTGGCCTGAACAGCACGCTGGTTCC  
 CGCGAGGTACCTGATGCCCATGCTCCTGGGCAGAGGCCTTTGGAGAGAGGCCACTTATG  
 GGCTCACAGCCAGGAGGGAGCCACTGATCGACTGGAACGCCGGGGATCCATACTGCTTCC  
 CCGTCTGCCAGCCCCCTTGCTCCCCCTTAACCCCCGCGCATCACACGCTCGCTTCTTC  
 TCTAGTCTCCCTACCGCCTTTAACCCAACCTCCCTTACCCTCCCCCAGTCTTATACTC  
 TCCTACCCCTCCACCCGCCCCTACTCCCCCACCCTTCCCACCCTCCTACTCACCTAAC  
 CCACTCTACCCCCGCGCCGCCACGCGACTTCCACCCTCACTGCGCCACCGCCACAACA  
 CCTTATCCCCCACATTCCCCACCGCCGCTCATTCTATCCCCTACTACCACTACTGGGCC  
 CGACTCTCCATCACTTCTTCTGACCTCACCTTGCCTTTGCTTGCCCCGCCCCATTATCT  
 TCCCCCCTCTACAGCCATCTCACAAATTTTCTATACTCCCTCGCGCTACTCTATCAAT  
 CCCCTACTTTACCTGTTACCCACGTTACCCCCCGCTTCTTCTTACATTATCCTCGCCA  
 TCCCAACCATTCCCCTATCTCCCCACACCACCACCGTCCAGCATACCTCAACACCTC  
 TAC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_014640

**Insert Size:**

1700 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](mailto: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\\_014640.2](#), [NP\\_055455.2](#)

**RefSeq Size:** 4208 bp

**RefSeq ORF:** 3600 bp

**Locus ID:** 9654

**UniProt ID:** [Q14679](#)

**Cytogenetics:** 2q35

**Domains:** TTL

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