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 RC205206

TTLL4 (NM_014640) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TTLL4 (NM_014640) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TTLL4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC205206 representing NM_014640
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCAGCAGGAACACAGCACTATAGTATTGGCCTCCGCCAGAAAAGCAGCTTCAAGCAGAGTGGTC
CCTCAGGCACAGTACCTGCCACGCCACCTGAGAAACCCTCGGAGGGCAGAGTCTGGCCTCAGGCCCATCA
GCAAGTGAAGCCAATCTGGAAGCTGGAAAAGAAGCAAGTGGAGACACTGTCAGCAGGGTTGGGCCCAGGC
CTCTTGGGCGTCCCACCCCAGCCAGCATATTTCTTTTGCCCCAGCACTTTATGTAGCTCTGGGACCACGG
CTGTCATTGCAGGCCACAGCAGTTCCTGTTACCTACACTCTCTCCCGGACTTGTTCAACAGCACCCTGCT
ATACCGCCGCTCCAGCTATAGGCAAAAACCGTACCAGCAACTGGAGTCTTTCTGCTTGCGTTCGAGCCCG
TCAGAAAAAAGCCCTTTTTCTCTCCCTCAAAAGAGCCTCCCTGTCAGTCTCACTGCCAACAAGGCCACTT
CTTCCATGGTCTTCTCCATGGCCCAGCCCATGGCCTCCTCATCCACAGAACCATACCTCTGCTTGGCAGC
GGCTGGGGAAAACCCTTCAGGGAAGAGCCTGGCCTCTGCCATCTCAGGGAAGATCCCATCTCCACTCTCT
TCCTCCTATAAGCCCATGCTGAATAATAATTCCTTCATGTGGCCAAATAGCACGCCAGTGCCTTTATTGC
AGACCACACAGGGCCTGAAGCCAGTATCGCCACCCAAGATCCAGCCTGTCTCCTGGCATCATTCAGGGGG
TACTGGAGACTGTGCACCGCAGCCTGTTGACCATAAGGTGCCCAAAAGCATTGGCACTGTCCCAGCTGAT
GCCAGTGCCCATATCGCCTTGTCTACCGCTAGCTCCCACGACACATCCACCACCAGTGTTGCCTCTTCCT
GGTATAACCGGAATAACTTAGCCATGAGGGCAGAGCCACTTTCCTGTGCTCTGGATGACAGCTCTGATTC
CCAGGATCCAACTAAGGAGATTCGGTTCACTGAGGCCGTGAGGAAATTGACCGCAAGAGGCTTTGAGAAG
ATGCCGAGGCAAGGCTGCCAGCTTGAACAGTCTAGTTTCCTGAACCCCAGCTTCCAGTGGAATGTCCTCA
ACAGGAGCAGGCGGTGGAAACCTCCTGCGGTAAATCAGCAGTTTCCTCAGGAGGATGCTGGATCGGTCAG
GCGGGTCCTCCCTGGTGCCTCAGATACCTTGGGGTTGGACAATACAGTCTTCTGTACCAAGCGTATCAGC
ATTCACCTCCTTGCCTCACATGCCAGTGGGCTCAATCACAACCCTGCCTGTGAATCTGTAATTGACTCCT
CAGCATTTGGAGAAGGCAAAGCTCCAGGTCCCCCTTTTCCTCAAACTCTTGGCATAGCCAACGTGGCCAC
CCGCCTCTCTTCCATCCAGCTGGGCCAGTCTGAGAAGGAGAGACCTGAGGAGGCCAGGGAGCTGGACTCA
TCTGATAGGGATATTAGTTCAGCTACTGACCTCCAGCCAGATCAGGCTGAGACTGAAGATACAGAAGAAG
AACTAGTAGATAGTTTGGAAGACTGTTGTGGCCGTGATGAGAATGAAGAGGAGGAGGGAGACTCAGAGTG

View online »

CTCCTCATTAAGTGCTGTCTCCCCCAGCGAATCGGTGGCCATGATCTCTAGAAGCTGTATGGAAATTCTG
ACCAAACCCCTTTCCAATCATGAGAAAGTTGTCCGACCAGCCCTCATCTACAGTCTCTTTCCCAACGTTC
CCCCTACCATCTATTTTGGCACTCGGGATGAGAGAGTGGAGAAACTTCCCTGGGAACAGAGGAAGTTGCT
CCGATGGAAGATGAGCACAGTGACCCCCAACATTGTCAAGCAGACCATTGGACGGTCCCACTTCAAAATC
AGCAAAAGAAACGATGACTGGCTGGGCTGCTGGGGTCACCACATGAAGTCTCCTAGTTTCCGATCCATTC
GAGAGCATCAGAAGCTAAACCATTTCCCAGGCTCATTCCAGATTGGGAGGAAGGACCGGCTATGGCGGAA
CCTGTCACGTATGCAGAGCCGCTTTGGCAAGAAGGAGTTCAGTTTCTTCCCCCAGTCCTTTATCCTGCCC
CAGGACGCCAAGCTCCTGCGCAAAGCGTGGGAGAGCAGCAGCCGCCAAAAGTGGATTGTGAAGCCACCAG
CATCAGCTCGAGGCATTGGCATCCAGGTTATTCACAAGTGGAGTCAGCTCCCCAAGCGAAGGCCCCTCCT
GGTACAGAGGTATCTACACAAACCCTACCTCATCAGCGGCAGCAAGTTTGACCTGCGGATCTATGTTTAT
GTCACTTCCTACGATCCTCTGCGGATTTACCTCTTTTCAGATGGACTGGTCCGCTTTGCCAGTTGCAAGT
ATTCGCCTTCCATGAAGAGCCTTGGCAATAAGTTCATGCACCTGACCAACTACAGTGTCAATAAAAAGAA
TGCCGAGTACCAGGCCAATGCAGATGAAATGGCTTGCCAGGGCCACAAATGGGCACTGAAGGCTTTGTGG
AACTACCTGAGCCAGAAGGGAGTCAATAGCGACTCCATCTGGGAGAAGATAAAGGATGTTGTTGTCAAAA
CTATCATCTCGTCAGAGCCCTATGTGACCAGCCTGCTCAAGATGTATGTGCGACGGCCCTATAGCTGCCA
TGAACTCTTTGGTTTTGACATCATGCTAGACGAAAACCTCAAGCCCTGGGTCCTGGAAGTCAACATTTCC
CCAAGCCTCCACTCCAGCTCTCCACTGGATATCAGCATCAAAGGCCAGATGATTCGTGACCTTCTGAATC
TGGCAGGTTTTGTCCTGCCCAATGCAGAGGATATCATTTCCAGCCCCAGCAGCTGCAGCAGCTCCACCAC
CAGCCTGCCCACCTCCCCTGGGGACAAATGTCGAATGGCTCCAGAGCATGTCACTGCACAGAAGATGAAG
AAAGCCTATTATCTGACCCAGAAAATTCCTGATCAGGACTTCTATGCATCTGTGCTGGATGTCCTGACAC
CAGATGATGTTCGGATTCTGGTTGAGATGGAAGATGAGTTTTCTCGCCGTGGTCAGTTTGAACGAATTTT
TCCTTCTCATATCTCCTCTCGCTATCTCCGCTTTTTTGAGCAGCCACGATATTTCAACATTCTCACCACC
CAATGGGAACAGAAATACCATGGCAACAAGCTTAAAGGAGTAGATCTGCTCCGGAGTTGGTGCTACAAAG
GGTTCCACATGGGAGTTGTCTCTGATTCTGCTCCAGTGTGGTCTCTCCCGACATCACTTCTGACTATCTC
AAAGGATGACGTGATACTCAATGCCTTCAGCAAATCAGAGACTAGCAAGCTGGGAAAACAAAGCTCCTGT
GAGGTTAGCCTACTACTCTCTGAAGACGGGACCACGCCCAAATCCAAGAAGACTCAAGCTGGCCTCTCCC
CTTATCCCCAGAAACCCAGTTCCTCAAAGGACAGTGAGGACACCAGCAAAGAGCCCAGCCTTTCTACCCA
GACGTTACCTGTGATCAAGTGCTCTGGGCAGACTTCAAGACTTTCTGCTTCCTCCACTTTCCAGTCAATC
AGTGACTCCCTCCTGGCTGTGAGCCCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205206 representing NM_014640
Red=Cloning site Green=Tags(s)

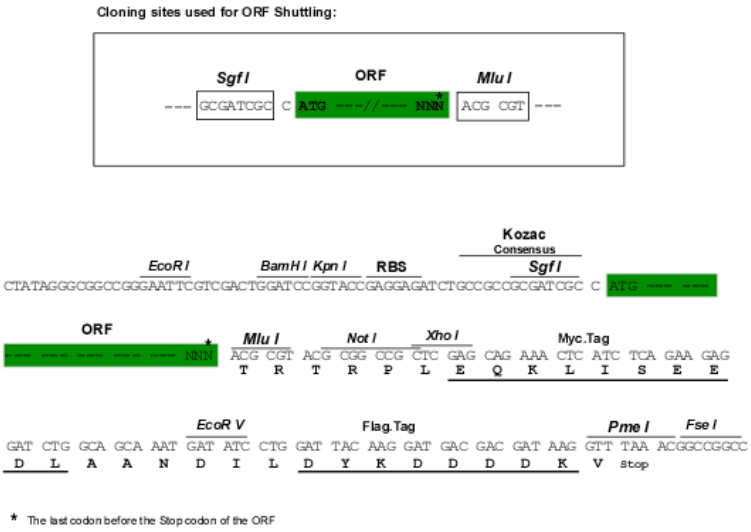
MASAGTQHYSIGLRQKSSFKQSGPSGTVPATPPEKPSEGRVWPQAHQQVKPIWKLEKKQVETLSAGLGPG
LLGVPPQPAYFFCPSTLCSSGTTAVIAGHSSSCYLHSLPDLFNSTLLYRRSSYRQKPYQQLESFCLRSSP
SEKSPFSLPQKSLPVSLTANKATSSMVFSMAQPMASSSTEPYLCLAAAGENPSGKSLASAISGKIPSPLS
SSYKPMLNNNSFMWPNSTPVPLLQTTQGLKPVSPPKIQPVSWHHSGGTGDCAPQPVDHKVPKSIGTVPAD
ASAHIALSTASSHDTSTTSVASSWYNRNNLAMRAEPLSCALDDSSDSQDPTKEIRFTEAVRKLTARGFEK
MPRQGCQLEQSSFLNPSFQWNVLNRSRRWKPPAVNQQFPQEDAGSVRRVLPGASDTLGLDNTVFCTKRIS
IHLLASHASGLNHNPACESVIDSSAFGEGKAPGPPFPQTLGIANVATRLSSIQLGQSEKERPEEARELDS
SDRDISSATDLQPDQAETEDTEEELVDSLEDCCGRDENEEEEGDSECSSLSAVSPSESVAMISRSCMEIL
TKPLSNHEKVVRPALIYSLFPNVPPTIYFGTRDERVEKLPWEQRKLLRWKMSTVTPNIVKQTIGRSHFKI
SKRNDDWLGCWGHHMKSPSFRSIREHQKLNHFPGSFQIGRKDRLWRNLSRMQSRFGKKEFSFFPQSFILP
QDAKLLRKAWESSSRQKWIVKPPASARGIGIQVIHKWSQLPKRRPLLVQRYLHKPYLISGSKFDLRIYVY
VTSYDPLRIYLFSDGLVRFASCKYSPSMKSLGNKFMHLTNYSVNKKNAEYQANADEMACQGHKWALKALW
NYLSQKGVNSDSIWEKIKDVVVKTIISSEPYVTSLLKMYVRRPYSCHELFGFDIMLDENLKPWVLEVNIS
PSLHSSSPLDISIKGQMIRDLLNLAGFVLPNAEDIISSPSSCSSSTTSLPTSPGDKCRMAPEHVTAQKMK
KAYYLTQKIPDQDFYASVLDVLTPDDVRILVEMEDEFSRRGQFERIFPSHISSRYLRFFEQPRYFNILTT
QWEQKYHGNKLKGVDLLRSWCYKGFHMGVVSDSAPVWSLPTSLLTISKDDVILNAFSKSETSKLGKQSSC
EVSLLLSEDGTTPKSKKTQAGLSPYPQKPSSSKDSEDTSKEPSLSTQTLPVIKCSGQTSRLSASSTFQSI
SDSLLAVSP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1760_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



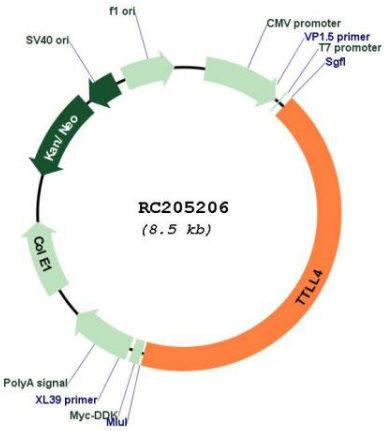
ACCN: NM_014640

ORF Size: 3597 bp

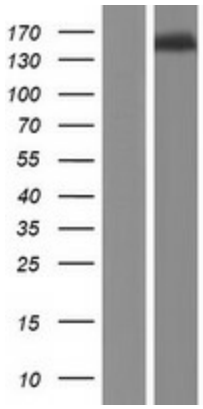
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_014640.3
RefSeq Size:	4208 bp
RefSeq ORF:	3600 bp
Locus ID:	9654
UniProt ID:	Q14679
Cytogenetics:	2q35
Domains:	TTL
MW:	133.2 kDa

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]

Product images:



Circular map for RC205206



Western blot validation of overexpression lysate (Cat# [LY415145]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205206 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).