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 RC204351

TYK2 (NM_003331) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TYK2 (NM_003331) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TYK2
Synonyms:	IMD35; JTK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204351 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTCTGCGCCACTGGGGGATGGCCAGGGGCAGTAAGCCCGTTGGGGATGGAGCCCAGCCCATGGCTG
CCATGGGAGGCCTGAAGGTGCTTCTGCACTGGGCTGGTCCAGGCGGCGGGGAGCCCTGGGTCACTTTCAG
TGAGTCATCGCTGACAGCTGAGGAAGTCTGCATCCACATTGCACATAAAGTTGGTATCACTCCTCCTTGC
TTCAATCTCTTTGCCCTCTTCGATGCTCAGGCCCAAGTCTGGTTGCCCCCAAACCACATCCTAGAGATCC
CCAGAGATGCAAGCCTGATGCTATATTTCCGCATAAGGTTTTATTTCCGGAACTGGCATGGCATGAATCC
TCGGGAACCGGCTGTGTACCGTTGTGGGCCCCCAGGAACCGAGGCATCCTCAGATCAGACAGCACAGGGG
ATGCAACTCCTGGACCCAGCCTCATTTGAGTACCTCTTTGAGCAGGGCAAGCATGAGTTTGTGAATGACG
TGGCATCACTGTGGGAGCTGTCGACCGAGGAGGAGATCCACCACTTTAAGAATGAGAGCCTGGGCATGGC
CTTTCTGCACCTCTGTCACCTCGCTCTCCGCCATGGCATCCCCCTGGAGGAGGTGGCCAAGAAGACCAGC
TTCAAGGACTGCATCCCGCGCTCCTTCCGCCGGCATATCCGGCAGCACAGCGCCCTGACCCGGCTGCGCC
TTCGGAACGTCTTCCGCAGGTTCCTGCGGGACTTCCAGCCGGGCCGACTCTCCCAGCAGATGGTCATGGT
CAAATACCTAGCCACACTCGAGCGGCTGGCACCCCGCTTCGGCACAGAGCGTGTGCCCGTGTGCCACCTG
AGGCTGCTGGCCCAGGCCGAGGGGGAGCCCTGCTACATCCGGGACAGTGGGGTGGCCCCTACAGACCCTG
GCCCTGAGTCTGCTGCTGGGCCCCCAACCCACGAGGTGCTGGTGACAGGCACTGGTGGCATCCAGTGGTG
GCCAGTAGAGGAGGAGGTGAACAAGGAGGAGGGTTCTAGTGGCAGCAGTGGCAGGAACCCCCAAGCCAGC
CTGTTTGGGAAGAAGGCCAAGGCTCACAAGGCAGTCGGCCAGCCGGCAGACAGGCCGCGGGAGCCACTGT
GGGCCTACTTCTGTGACTTCCGGGACATCACCCACGTGGTGCTGAAAGAGCACTGTGTCAGCATCCACCG
GCAGGACAACAAGTGCCTGGAGCTGAGCTTGCCTTCCCGGGCTGCGGCGCTGTCCTTCGTGTCGCTGGTG
GACGGCTATTTCCGCCTGACGGCCGACTCCAGCCACTACCTGTGCCACGAGGTGGCTCCCCCACGGCTGG
TGATGAGCATCCGGGATGGGATCCACGGACCCCTGCTGGAGCCATTTGTGCAGGCCAAGCTGCGGCCCGA
GGACGGCCTGTACCTCATTCACTGGAGCACCAGCCACCCCTACCGCCTGATCCTCACAGTGGCCCAGCGT

View online »

AGCCAGGCACCAGACGGCATGCAGAGCTTGCGGCTCCGAAAGTTCCCCATTGAGCAGCAGGACGGGGCCT
TCGTGCTGGAGGGCTGGGGCCGGTCCTTCCCCAGCGTTCGGGAACTTGGGGCTGCCTTGCAGGGCTGCTT
GCTGAGGGCCGGGGATGACTGCTTCTCTCTGCGTCGCTGTTGCCTGCCCCAACCAGGAGAAACCTCCAAT
CTCATCATCATGCGGGGGGCTCGGGCCAGCCCCAGGACACTCAACCTCAGCCAGCTCAGCTTCCACCGGG
TTGACCAGAAGGAGATCACCCAGCTGTCCCACTTGGGCCAGGGCACAAGGACCAACGTGTATGAGGGCCG
CCTGCGAGTGGAGGGCAGCGGGGACCCTGAGGAGGGCAAGATGGATGACGAGGACCCCCTCGTGCCTGGC
AGGGACCGTGGGCAGGAGCTACGAGTGGTGCTCAAAGTGCTGGACCCTAGTCACCATGACATCGCCCTGG
CCTTCTACGAGACAGCCAGCCTCATGAGCCAGGTCTCCCACACGCACCTGGCCTTCGTGCATGGCGTCTG
TGTGCGCGGCCCTGAAAATATCATGGTGACAGAGTACGTGGAGCACGGACCCCTGGATGTGTGGCTGCGG
AGGGAGCGGGGCCATGTGCCCATGGCTTGGAAGATGGTGGTGGCCCAGCAGCTGGCCAGCGCCCTCAGCT
ACCTGGAGAACAAGAACCTGGTTCATGGTAATGTGTGTGGCCGGAACATCCTGCTGGCCCGGCTGGGGTT
GGCAGAGGGCACCAGCCCCTTCATCAAGCTGAGTGATCCTGGCGTGGGCCTGGGCGCCCTCTCCAGGGAG
GAGCGGGTGGAGAGGATCCCCTGGCTGGCCCCCGAATGCCTACCAGGTGGGGCCAACAGCCTAAGCACCG
CCATGGACAAGTGGGGGTTTGGCGCCACCCTCCTGGAGATCTGCTTTGACGGAGAGGCCCCTCTGCAGAG
CCGCAGTCCCTCCGAGAAGGAGCATTTCTACCAGAGGCAGCACCGGCTGCCCGAGCCCTCCTGCCCACAG
CTGGCCACACTCACCAGCCAGTGTCTGACCTATGAGCCAACCCAGAGGCCATCATTCCGCACCATCCTGC
GTGACCTCACCCGGCTGCAGCCCCACAATCTTGCTGACGTCTTGACTGTGAACCCGGACTCACCGGCGTC
GGACCCTACGGTTTTCCACAAGCGCTATTTGAAAAAGATCCGAGATCTGGGCGAGGGTCACTTCGGCAAG
GTCAGCTTGTACTGCTACGATCCGACCAACGACGGCACTGGCGAGATGGTGGCGGTGAAAGCCCTCAAGG
CAGACTGCGGCCCCCAGCACCGCTCGGGCTGGAAGCAGGAGATTGACATTCTGCGCACGCTCTACCACGA
GCACATCATCAAGTACAAGGGCTGCTGCGAGGACCAAGGCGAGAAGTCGCTGCAGCTGGTCATGGAGTAC
GTGCCCCTGGGCAGCCTCCGAGACTACCTGCCCCGGCACAGCATCGGGCTGGCCCAGCTGCTGCTCTTCG
CCCAGCAGATCTGCGAGGGCATGGCCTATCTGCACTCGCAGCACTACATCCACCGAGACCTAGCCGCGCG
CAACGTGCTGCTGGACAACGACAGGCTGGTCAAGATCGGGGACTTTGGCCTAGCCAAGGCCGTGCCCGAA
GGCCACGAGTACTACCGCGTGCGCGAGGATGGGGACAGCCCCGTGTTCTGGTATGCCCCAGAGTGCCTGA
AGGAGTATAAGTTCTACTATGCGTCAGATGTCTGGTCCTTCGGGGTGACCCTGTATGAGCTGCTGACGCA
CTGTGACTCCAGCCAGAGCCCCCCCACGAAATTCCTTGAGCTCATAGGCATTGCTCAGGGTCAGATGACA
GTTCTGAGACTCACTGAGTTGCTGGAACGAGGGGAGAGGCTGCCACGGCCCGACAAATGTCCCTGTGAGG
TCTATCATCTCATGAAGAACTGCTGGGAGACAGAGGCGTCCTTTCGCCCAACCTTCGAGAACCTCATACC
CATTCTGAAGACAGTCCATGAGAAGTACCAAGGCCAGGCCCCTTCAGTGTTCAGCGTGTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204351 protein sequence
Red=Cloning site Green=Tags(s)

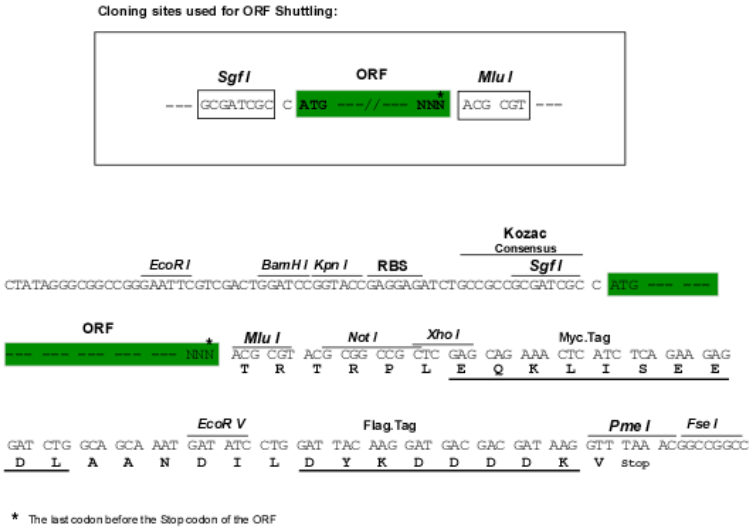
MPLRHWGMARGSKPVGDGAQPMAAMGGLKVLLHWAGPGGGEPWVTFSESSLTAEEVCIHIAHKVGITPPC
FNLFALFDAQAQVWLPPNHILEIPRDASLMLYFRIRFYFRNWHGMNPREPAVYRCGPPGTEASSDQTAQG
MQLLDPASFEYLFEQGKHEFVNDVASLWELSTEEEIHHFKNESLGMAFLHLCHLALRHGIPLEEVAKKTS
FKDCIPRSFRRHIRQHSALTRLRLRNVFRRFLRDFQPGRLSQQMVMVKYLATLERLAPRFGTERVPVCHL
RLLAQAEGEPCYIRDSGVAPTDPGPESAAGPPTHEVLVTGTGGIQWWPVEEEVNKEEGSSGSSGRNPQAS
LFGKKAKAHKAVGQPADRPREPLWAYFCDFRDITHVVLKEHCVSIHRQDNKCLELSLPSRAAALSFVSLV
DGYFRLTADSSHYLCHEVAPPRLVMSIRDGIHGPLLEPFVQAKLRPEDGLYLIHWSTSHPYRLILTVAQR
SQAPDGMQSLRLRKFPIEQQDGAFVLEGWGRSFPSVRELGAALQGCLLRAGDDCFSLRRCCLPQPGETSN
LIIMRGARASPRTLNLSQLSFHRVDQKEITQLSHLGQGTRTNVYEGRLRVEGSGDPEEGKMDDEDPLVPG
RDRGQELRVVLKVLDPSHHDIALAFYETASLMSQVSHTHLAFVHGVCVRGPENIMVTEYVEHGPLDVWLR
RERGHVPMAWKMVVAQQLASALSYLENKNLVHGNVCGRNILLARLGLAEGTSPFIKLSDPGVGLGALSRE
ERVERIPWLAPECLPGGANSLSTAMDKWGFGATLLEICFDGEAPLQSRSPSEKEHFYQRQHRLPEPSCPQ
LATLTSQCLTYEPTQRPSFRTILRDLTRLQPHNLADVLTVNPDSPASDPTVFHKRYLKKIRDLGEGHFGK
VSLYCYDPTNDGTGEMVAVKALKADCGPQHRSGWKQEIDILRTLYHEHIIKYKGCCEDQGEKSLQLVMEY
VPLGSLRDYLPRHSIGLAQLLLFAQQICEGMAYLHSQHYIHRDLAARNVLLDNDRLVKIGDFGLAKAVPE
GHEYYRVREDGDSPVFWYAPECLKEYKFYYASDVWSFGVTLYELLTHCDSSQSPPTKFLELIGIAQGQMT
VLRLTELLERGERLPRPDKCPCEVYHLMKNCWETEASFRPTFENLIPILKTVHEKYQGQAPSVFSVC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6169_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

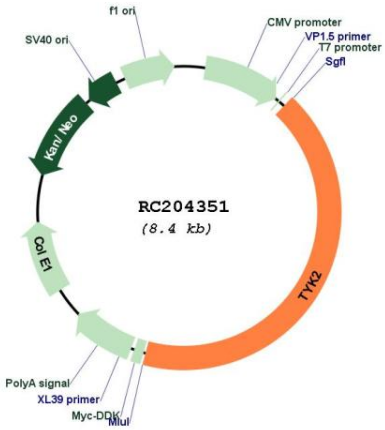


ACCN: NM_003331

ORF Size: 3561 bp

OTI Disclaimer:	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_003331.3, NP_003322.2
RefSeq Size:	4262 bp
RefSeq ORF:	3564 bp
Locus ID:	7297
UniProt ID:	P29597
Cytogenetics:	19p13.2
Domains:	B41, pkinase, SH2, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Jak-STAT signaling pathway
MW:	133.7 kDa
Gene Summary:	This gene encodes a member of the tyrosine kinase and, more specifically, the Janus kinases (JAKs) protein families. This protein associates with the cytoplasmic domain of type I and type II cytokine receptors and promulgate cytokine signals by phosphorylating receptor subunits. It is also a component of both the type I and type III interferon signaling pathways. As such, it may play a role in anti-viral immunity. A mutation in this gene has been associated with Immunodeficiency 35. [provided by RefSeq, Sep 2020]

Product images:



Circular map for RC204351