

Product datasheet for **RC400779**

BTK (NM_000061) Human Mutant ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Mutant ORF Clones |
| Product Name: | BTK (NM_000061) Human Mutant ORF Clone |
| Mutation Description: | R28L |
| Affected Codon#: | 28 |
| Affected NT#: | 83 |
| Nucleotide Mutation: | BTK Mutant (R28L), Myc-DDK-tagged ORF clone of Homo sapiens Bruton agammaglobulinemia tyrosine kinase (BTK) as transfection-ready DNA |
| Effect: | Ammlobulinemi |
| Symbol: | BTK |
| Synonyms: | AGMX1; AT; ATK; BPK; IGHD3; IMD1; PSCTK1; XLA |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| Tag: | Myc-DDK |
| ACCN: | NM_000061 |
| ORF Size: | 1977 bp |
| Restriction Sites: | Sgfl-Mlul |



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC400779 representing NM_000061
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCGCAGTGATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCTAA
 ACTTCAAGAAGCTCCTGTTTCTTTGACCGTGCACAACTCTCCTACTATGAGTATGACTTTGAACGTGG
 GAGAAGAGGCAGTAAGAAGGTTCAATAGATGTTGAGAAGATCACTTGTGTTGAAACAGTGGTTCCTGAA
 AAAAACTCTCCTCCAGAAAGACAGATTCGAGAAGAGGTGAAGAGTCCAGTGAATGGAGCAAATTTCAA
 TCATTGAAAGGTTCCCTTATCCCTTCCAGGTTGTATATGATGAAGGGCCTCTCTACGCTCTCTCCCAAC
 TGAAGAATAAGGAAGCGGTGGATTACCAGCTCAAAAACGTAATCCGGTACAACAGTATCTGGTTCAG
 AAATATCACCTTGCTTCTGGATCGATGGCAGTATCTCTGCTGCTCTCAGACAGCCAAAAATGCTATGG
 GCTGCCAAATTTGGAGAACAGGAATGGAAGCTTAAAACCTGGGAGTTCTCACCGGAAGCAAAAAAGCC
 TCTTCCCAACGCCTGAGGAGGACCAGATCTTAAAAAGCCACTACCGCTGAGCCAGCAGCAGCACCA
 GTCTCCACAAGTGAGCTGAAAAAGGTTGTGGCCCTTTATGATTACATGCCAATGAATGCAATGATCTAC
 AGCTGCGGAAGGGTATGAATATTTTATCTTGGAGGAAAGCAACTTACCATGGTGGAGAGCACGAGATAA
 AAATGGGCAGGAAGGCTACATTCCTAGTAACTATGCTACTGAAGCAGAAGACTCCATAGAAAATGTATGAG
 TGGTATTCAAACACATGACTCGGAGTCAGGCTGAGCAACTGCTAAAGCAAGAGGGGAAAGAAGGAGGTT
 TCATTGTCAGAGACTCCAGCAAAGCTGGCAAATATACAGTGTCTGTGTTTGTAAATCCACAGGGGACCC
 TCAAGGGGTGATACGTCAATATGTTGTGTGTTCCACACCTCAGAGCCAGTATTACCTGGCTGAGAAGCAC
 CTTTTACGACCATCCCTGAGCTCATTAACACCATCAGCACAACCTCTGCAGGACTCATATCCAGGCTCA
 AATATCCAGTGTCTCAACAAAAACAAGAATGCACCTTCCACTGCAGGCCTGGGATACGGATCATGGGAAAT
 TGATCCAAAGGACCTGACCTTCTTGAAGGAGCTGGGGACTGGACAATTTGGGGTAGTGAAGTATGGGAAA
 TGGAGAGGCCAGTACGACGTGGCCATCAAGATGATCAAAGAAGGCTCCATGTCTGAAGATGAATTCATTG
 AAGAAGCCAAAGTCATGATGAATCTTTCCCATGAGAAGCTGGTGCAGTTGTATGGCGTCTGCACCAAGCA
 GCGCCCATCTTCATCATCACTGAGTACATGGCCAATGGCTGCCTCCTGAACTACCTGAGGGAGATGCGC
 CACCGCTTCCAGACTCAGCAGCTGCTAGAGATGTGCAAGGATGTCTGTGAAGCCATGGAATACCTGGAGT
 CAAAGCAGTTCCTTACCAGACCTGGCAGCTCGAACTGTTTGGTAAACGATCAAGGAGTTGTTAAAGT
 ATCTGATTTCCGCTGTCCAGGTATGCTCTGGATGATGAATACACAAGCTCAGTAGGCTCCAATTTCCA
 GTCCGGTGGTCCCACCAGGATCCTGATGTATAGCAAGTTCAGCAGCAAATCTGACATTTGGGCTTTTG
 GGGTTTTGATGTGGGAAATTTACTCCCTGGGGAAGATGCCATATGAGAGATTTACTAACAGTGAGACTGC
 TGAACACATTGCCAAGGCTACGTCTCTACAGGCCTCATCTGGCTTCAGAGAAGGTATATACCATCATG
 TACAGTTGCTGGCATGAGAAAGCAGATGAGCGTCCCACTTTCAAATCTTCTGAGCAATATTCTAGATG
 TCATGGATGAAGATCC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC400779 representing NM_000061
 Red=Cloning site Green=Tags(s)

MAAVILESIFLKRSQQKKKTSPLNFKKLLFLLTVHKLSYIEYDFERGRRSKKGSIDVEKITCVETVVP
 KNPPPERQIPRRGEESSEMEQISIIEERFPYPFQVYVDEGLYVFSPTTEELRKRWIHQLKNVIRNSDLVQ
 KYHPCFWIDGQYLCCSQTAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPAAAP
 VSTSELKVVVALYDYMPMNANDLQLRKGDEYFILLEENLPWWRARDKNGQEGYIPSNYVTEAEDSIEMYE
 WYSKHMTRSQAELKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSYYLAEKH
 LFSTIPELINYHOHNSAGLISRKYPVVSQONKNAPSTAGLYGSWEIDPKDLTFLKELGTGQFGVVKYK
 WRGQYDVAIKMIKEGSMSEDEFIEEAKVMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYREMR
 HRFQTQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKSDFGLSRYVLDDEYTSVSGSKFP
 VRWSPPEVLMYSKFSKSDIWAFGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASEKVVYTIM
 YSCWHEKADERPTFKILLSNILDVMDEES

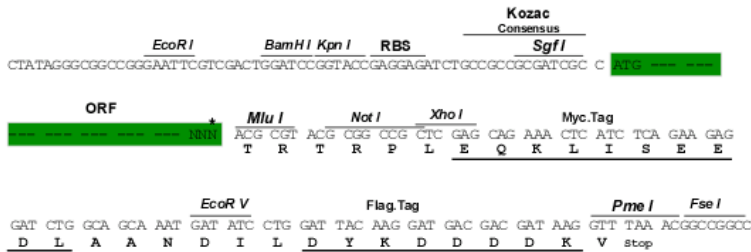
SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

| | |
|--------------------------|---|
| 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). |
| RefSeq: | NP_000052 |
| RefSeq Size: | 1977 bp |
| RefSeq ORF: | 1980 bp |
| Locus ID: | 695 |
| Cytogenetics: | Xq22.1 |
| Domains: | pkinase, SH2, TyrKc, SH3, BTK, PH, S_TKc |
| Protein Families: | Druggable Genome, Protein Kinase |
| Protein Pathways: | B cell receptor signaling pathway, Fc epsilon RI signaling pathway, Primary immunodeficiency |
| MW: | 72.5 kDa |
| Gene Summary: | The protein encoded by this gene plays a crucial role in B-cell development. Mutations in this gene cause X-linked agammaglobulinemia type 1, which is an immunodeficiency characterized by the failure to produce mature B lymphocytes, and associated with a failure of Ig heavy chain rearrangement. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2013] |