

Product datasheet for **RC400975**

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:	R562P
Affected Codon#:	562
Affected NT#:	1685
Nucleotide Mutation:	BTK Mutant (R562P), 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



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ORF Nucleotide
Sequence:

>RC400975 representing NM_000061
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCCGCAGTGATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCTAA
ACTTCAAGAAGCGCCTGTTTCTTTGACCGTGCACAACTCTCCTACTATGAGTATGACTTTGAACGTGG
GAGAAGAGGCAGTAAGAAGGTTCAATAGATGTTGAGAAGATCACTTGTGTTGAAACAGTGGTTCCTGAA
AAAAATCTCCTCCAGAAAGACAGATTCGAGAAGAGGTGAAGAGTCCAGTGAAATGGAGCAAATTTCAA
TCATTGAAAGGTTCCCTTATCCCTTCCAGGTTGTATATGATGAAGGGCCTCTCTACGCTCTCTCCCAAC
TGAAGAATAAGGAAGCGGTGGATTACCAGCTCAAAAACGTAATCCGGTACAACAGTGATCTGGTTCAG
AAATATCACCTTGTCTTGGATCGATGGCAGTATCTCTGCTGCTCTCAGACAGCCAAAAATGCTATGG
GCTGCCAAATTTGGAGAACAGGAATGGAAGCTTAAAACCTGGGAGTTCTCACCGGAAGCAAAAAAGCC
TCTTCCCAACGCCTGAGGAGGACCAGATCTTAAAAAGCCACTACCGCTGAGCCAGCAGCAGCACCA
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AGCTGCGGAAGGGTGATGAATATTTTATCTTGGAGGAAAGCAACTTACCATGGTGGAGAGCACGAGATAA
AAATGGGCAGGAAGGCTACATTCCTAGTAACTATGCACTGAAGCAGAAGACTCCATAGAAAATGTATGAG
TGGTATTCAAACACATGACTCGGAGTCAGGCTGAGCAACTGCTAAAGCAAGAGGGGAAAGAAGGAGGTT
TCATTGTCAGAGACTCCAGCAAAGCTGGCAAATATACAGTGTCTGTGTTGCTAAATCCACAGGGGACCC
TCAAGGGGTGATACGTCATTATGTTGTGTGTTCCACACCTCAGAGCCAGTATTACCTGGCTGAGAAGCAC
CTTTTCAGCACCATCCCTGAGCTCATTAACACCATCAGCACAACCTCTGCAGGACTCATATCCAGGCTCA
AATATCCAGTGTCTCAACAAAACAAGAATGCACCTTCCACTGCAGGCCCTGGGATACGGATCATGGGAAAT
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TGGAGAGGCCAGTACGACGTGGCCATCAAGATGATCAAAGAAGGCTCCATGTCTGAAGATGAATTCATTG
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GCGCCCATCTTCATCATCACTGAGTACATGGCCAATGGCTGCCTCCTGAACTACCTGAGGGAGATGCGC
CACCGCTTCCAGACTCAGCAGCTGCTAGAGATGTGCAAGGATGTCTGTGAAGCCATGGAATACCTGGAGT
CAAAGCAGTTCCTTACCAGACCTGGCAGCTCGAACTGTTTGGTAAACGATCAAGGAGTTGTTAAAGT
ATCTGATTTCCGCTGTCCAGGTATGCTCTGGATGATGAATACACAAGCTCAGTAGGCTCCAAATTTCCA
GTCCCGTGGTCCCACCGAAGTCTGTATAGCAAGTTCAGCAGCAAATCTGACATTTGGGCTTTTG
GGGTTTTGATGTGGGAAATTTACTCCCTGGGGAAGATGCCATATGAGAGATTTACTAACAGTGAGACTGC
TGAACACATTGCCAAGGCTACGTCTCTACAGGCCTCATCTGGCTTCAGAGAAGGTATATACCATCATG
TACAGTTGCTGGCATGAGAAAGCAGATGAGCGTCCCACTTTCAAATCTTCTGAGCAATATTCTAGATG
TCATGGATGAAGAATCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC400975 representing NM_000061
 Red=Cloning site Green=Tags(s)

MAAVILESIFLKRSQQKKKTSPLNFKKRLFLLTVHKLSYYEYDFERGRGSKKGSIDVEKITCVETVVPE
 KNPPPERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTEELRKRWIHQKNVIRNSDLVQ
 KYHPCFWIDGQYLCCSQTAKNAMGCQILENRNGLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPAAAP
 VSTSELKKVVALYDYMPMNANDLQLRKGDEYF ILEESNLPWWRARDKNGQEGYIPSNYVTEAEDSIEMYE
 WYSKHMTRSQAELLKQEGKEGGFIVRDSSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSYYLAEKH
 LFSTIPELINYHQHNSAGLISRKYPVSQQKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVKYK
 WRGQYDVAIKMIKEGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPIFIITEYMANGCLLNLYREMR
 HRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKVSDFGLSRYVLDDEYTSVSGSKFP
 VPWSPPEVLMYSKFSKSDIWAFGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASEKVVYTIM
 YSCWHEKADERPTFKILLSNILDVMDEES

SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
RefSeq:	<p>NP_000052</p>
RefSeq Size:	<p>1977 bp</p>
RefSeq ORF:	<p>1980 bp</p>
Locus ID:	<p>695</p>
Cytogenetics:	<p>Xq22.1</p>
Domains:	<p>pkinase, SH2, TyrKc, SH3, BTK, PH, S_TKc</p>
Protein Families:	<p>Druggable Genome, Protein Kinase</p>
Protein Pathways:	<p>B cell receptor signaling pathway, Fc epsilon RI signaling pathway, Primary immunodeficiency</p>
MW:	<p>72.5 kDa</p>
Gene Summary:	<p>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]</p>