

Product datasheet for **RC400846**

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:	E277X
Affected Codon#:	277
Affected NT#:	829
Nucleotide Mutation:	BTK Mutant (E277X), 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:	828 bp
Restriction Sites:	Sgfl-Mlul



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ORF Nucleotide Sequence:

>RC400846 representing NM_000061
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGAGTATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCTAA
 ACTTCAAGAAGCGCTGTTTCTTTGACCGTGCACAACTCTCCTACTATGAGTATGACTTTGAACGTGG
 GAGAAGAGGCAGTAAGAAGGTTCAATAGATGTTGAGAAGATCACTTGTGTTGAAACAGTGGTTCCTGAA
 AAAAAATCCTCCTCCAGAAAGACAGATTCGAGAAGAGGTGAAGAGTCCAGTGAATGGAGCAAATTTCAA
 TCATTGAAAGGTTCCCTTATCCCTTCCAGGTTGTATATGATGAAGGGCCTCTCTACGCTCTCTCCCAAC
 TGAAGAATAAGGAAGCGGTGGATTACCAGCTCAAAAACGTAATCCGGTACAACAGTATCTGGTTCAG
 AAATATCACCTTGTCTTCTGGATCGATGGCAGTATCTCTGCTGCTCTCAGACAGCCAAAAATGCTATGG
 GCTGCCAAATTTGGAGAACAGGAATGGAAGCTTAAAACCTGGGAGTTCTCACCGAAGACAAAAAGCC
 TCTTCCCAACGCCTGAGGAGGACCAGATCTGAAAAAGCCACTACCGCTGAGCCAGCAGCAGCACCA
 GTCTCCACAAGTGAGCTGAAAAAGGTTGTGGCCCTTTATGATTACATGCCAATGAATGCAATGATCTAC
 AGCTGCGGAAGGGTATGAATATTTTATCTTGGAGGAAAGCAACTACCATGGTGGAGAGCAGAGATAA
 AAATGGGCAGGAAGGCTACATTCCTAGTAACTATGCACTGAAGCAGAAGACTCCATA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

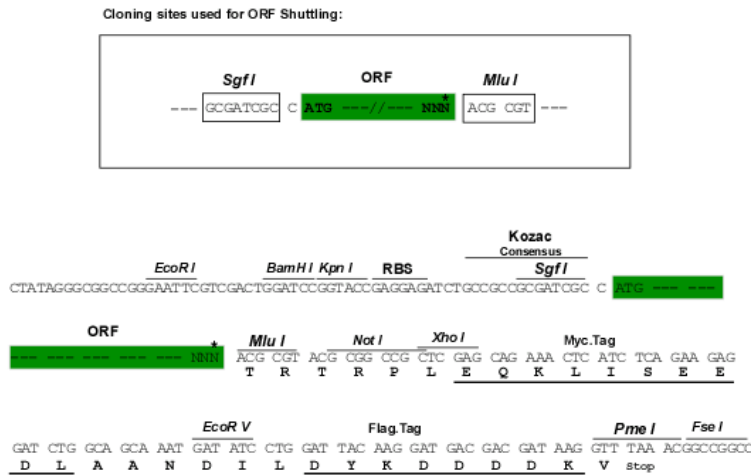
>RC400846 representing NM_000061
 Red=Cloning site Green=Tags(s)

MAAVILESIFLKRSQQKKKTSPLNFKKRLFLLTVHKLSYYEYDFERGRRSKKGSI DVEKITCVETVVP
 KNPPPERQIPRRGESSEMEQISIERFPYPFQVYVDEGPLYVFSPTTELRKRWIHQLKNVIRYNSDLVQ
 KYHPCFWIDGQYLCCSQTAKNAMGCQILENRNGLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPAAAP
 VSTSELKKVVALYDYMPMNANDLQLRKGD EYF ILEESNLPWWRARDKNGQEGYIPSNYVTEAEDSI

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


* The last codon before the Stop codon of the ORF

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>
Note:	<p>Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.</p>
RefSeq:	<p>NP_000052</p>
RefSeq Size:	<p>828 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>30.4 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>