

Product datasheet for RC400800

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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: Q78X

Affected Codon#: 78

Affected NT#: 232

Nucleotide Mutation: BTK Mutant (Q78X), 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: 231 bp
Restriction Sites: Sgfl-Mlul

ORF Nucleotide >RC400800 representing NM_000061

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCCGCAGTGATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCTAA ACTTCAAGAAGCGCCTGTTTCTCTTGACCGTGCACAAACTCTCCTACTATGAGTATGACTTTGAACGTGG GAGAAGAGGCAGTAAGAAGGGTTCAATAGATGTTGAGAAGATCACTTGTGTTGAAACAGTGGTTCCTGAA

AAAAATCCTCCTCCAGAAAGA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC

TGGATTACAAGGATGACGACGA TAAGGTTTAA





Protein Sequence: >RC400800 representing NM_000061

Red=Cloning site Green=Tags(s)

MAAVILESIFLKRSQQKKKTSPLNFKKRLFLLTVHKLSYYEYDFERGRRGSKKGSIDVEKITCVETVVPE

KNPPPER

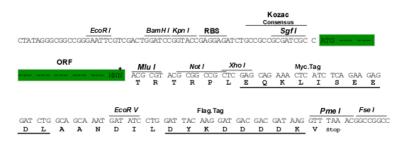
SGPTRTRRLEQKLISEEDLAANDILDYKDDDDK**V**

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORI

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 customer.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. <u>More info</u>

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: 231 bp **RefSeq ORF:** 1980 bp



BTK (NM_000061) Human Mutant ORF Clone - RC400800

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: 8.5 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]