

Product datasheet for **RG211582**

BTK (NM_000061) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTK (NM_000061) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BTK
Synonyms:	AGMX1; AT; ATK; BPK; IGHD3; IMD1; PSCTK1; XLA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG211582 representing NM_000061
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCCGCAGTGATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCTAA
ACTTCAAGAAGCGCCTGTTTCTCTTGACCGTGCACAACTCTCCTACTATGAGTATGACTTTGAAGTGG
GAGAAGAGGCAGTAAGAAGGTTCAATAGATGTTGAGAAGATCACTTGTGTTGAAACAGTGGTTCCTGAA
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TCATTGAAAGGTTCCCTTATCCCTTCCAGGTTGTATATGATGAAGGCGCTCTCTACGTCTTCTCCCAAC
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AAATATCACCTTGCTTCTGGATCGATGGGCAGTATCTCTGCTGCTCAGACAGCCAAAAATGCTATGG
GCTGCCAAATTTGGAGAACAGGAATGGAAGCTTAAAACCTGGGAGTTCTCACCGGAAGACAAAAAGCC
TCTTCCCAACGCCTGAGGAGGACCAGATCTTAAAAAGCCACTACCGCCTGAGCCAGCAGCAGCACCA
GTCTCCACAAGTGAAGTAAAAAGGTTGTGGCCCTTTATGATTACATGCCAATGAATGCAATGATCTAC
AGCTGCGGAAGGGTGATGAATATTTTATCTTGGAGGAAAGCAACTTACCATGGTGGAGAGCACGAGATAA
AAATGGGCAGGAAGGCTACATTCCTAGTAACTATGTCACTGAAGCAGAAGACTCCATAGAAATGTATGAG
TGGTATTCCAAACACATGACTCGGAGTCAGGCTGAGCAACTGCTAAAGCAAGAGGGGAAAGAAGGAGGTT
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CACCGCTTCCAGACTCAGCAGCTGCTAGAGATGTGCAAGGATGTCTGTGAAGCCATGGAATACCTGGAGT
CAAAGCAGTTCCTTACCAGACCTGGCAGCTCGAACTGTTTGGTAAACGATCAAGGAGTTGTTAAAGT
ATCTGATTTCCGGCTGTCCAGGTATGCTCTGGATGATGAATACACAAGCTCAGTAGGCTCCAAATTTCCA
GTCCGGTGGTCCCACCGAAGTCTGTATAGCAAGTTCAGCAGCAAATCTGACATTTGGGCTTTTG
GGTTTTGATGTGGGAAATTTACTCCCTGGGGAAGATGCCATATGAGAGATTTACTAACAGTGAAGTGC
TGAACACATTGCCAAGGCTACGTCTCTACAGGCTCATCTGGCTTCCAGAGAAGGTATATACCATCATG
TACAGTTGCTGGCATGAGAAAGCAGATGAGCGTCCCACTTTCAAATTTCTCTGAGCAATATTCTAGATG
TCATGGATGAAGAATCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211582 representing NM_000061
 Red=Cloning site Green=Tags(s)

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MAAVILESIFLKRSQQKKKTSPLNFKKRLFLLTVHKL SYEYDFERGRGSKKGSIDVEKITCVETVVP
KNPPPERQIPRRGEESSEMEQISIIERFPYPFQVVYDEGPLYVFSPTEELRKRWIHQKKNVIRYNSDLVQ
KYHPCFWIDGQYLCCSQTAKNAMGCQILENRNGSLKPGSSHRKTKKPLPPTPEEDQILKKPLPPEPAAAP
VSTSELKKVVALYDYMPMNANDLQLRKGDEYFILLEENLPWWRARDKNGQEGYIPSNYVTEAEDSIEMYE
WYSKHMTRSQAELLLKQEGKEGGFIVRDSKAGKYTVSVFAKSTGDPQGVIRHYVVCSTPQSQYLAEKH
LFSTIPELINYHQHNSAGLISRLKYPVSQQNKNAPSTAGLGYGSWEIDPKDLTFLKELGTGQFGVVYKYGK
WRGQYDVAIKMIKEGSMSEDEFIEEAKVMMNLSHEKLVQLYGVCTKQRPFIITEYMANGCLLNLYREMR
HRFQTQQLLEMCKDVCEAMEYLESKQFLHRDLAARNCLVNDQGVVKVSDFGLSRYVLDDEYTSVSGSKFP
VRWSPPEVLMYSKFSSKSDIWFAGVLMWEIYSLGKMPYERFTNSETAEHIAQGLRLYRPHLASEKVVYTIM
YSCWHEKADERPTFKILLSNILDVMDEES
  
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000061

ORF Size: 1977 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_000061.3](#)

RefSeq Size: 2591 bp

RefSeq ORF: 1980 bp

Locus ID: 695

UniProt ID: [Q06187](#)

Cytogenetics: Xq22.1

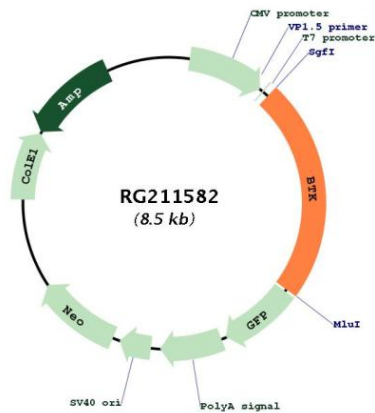
Domains: pkinase, SH2, TyrKc, SH3, BTK, PH, S_TKc

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: B cell receptor signaling pathway, Fc epsilon RI signaling pathway, Primary immunodeficiency

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]

Product images:



Circular map for RG211582