

Product datasheet for **SC115442**

BTK (NM_000061) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTK (NM_000061) Human Untagged Clone
Tag:	Tag Free
Symbol:	BTK
Synonyms:	AGMX1; AT; ATK; BPK; IGHD3; IMD1; PSCTK1; XLA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF sequence for NM_000061 edited
 ATGGCCGAGTATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAAACA
 TCACCTCTAAACTTCAAGAAGCGCCTGTTTCTCTTGACCGTGCACAACTCTCCTACTAT
 GAGTATGACTTTGAAACGTGGGAGAAGAGGCAGTAAGAAGGGTTCAATAGATGTTGAGAAG
 ATCACTTGTGTTGAAACAGTGGTTCCTGAAAAAATCCTCCTCCAGAAAGACAGATTCCG
 AGAAGAGGTGAAGAGTCCAGTGAATGGAGCAAATTTCAATCATTGAAAGGTTCCCTTAT
 CCCTCCAGGTTGATATGATGAAGGGCCTCTACGTCTTCTCCCAACTGAAGAACTA
 AGGAAGCGGTGGATTACCCAGCTCAAAAACGTAATCCGGTACAACAGTGATCTGGTTCAG
 AAATATACCCCTTGCTTCTGGATCGATGGGAGTATCTCTGCTGCTCTCAGACAGCCAAA
 AATGCTATGGGCTGCCAAATTTTGGAGAACAGGAATGGAAGCTTAAAACCTGGGAGTTCT
 CACCGGAAGACAAAAAGCCTCTTCCCAACGCCTGAGGAGGACCAGATCTTAAAAAG
 CCACTACCGCCTGAGCCAGCAGCAGCACCAGTCTCCACAAGTGAAGTGAAGGTTGTG
 GCCCTTATGATTACATGCCAATGAATGCAATGATCTACAGCTGCGGAAGGGTATGAA
 TATTTTATCTGGAGGAAAGCAACTTACCATGGTGGAGAGCACGAGATAAAAAATGGGCAG
 GAAGGCTACATTCCTAGTAACTATGCTACTGAAGCAGAAGACTCCATAGAAATGTATGAG
 TGGTATCCAAACACATGACTCGGAGTCAAGGCTGAGCAACTGCTAAAGCAAGAGGGGAAA
 GAAGGAGGTTTCATTGTGAGAGACTCCAGCAAAGCTGGCAAATATACAGTGTCTGTGTTT
 GCTAAATCCACAGGGGACCCTCAAGGGGTGATACGTATTATGTTGTGTGTTCCACACCT
 CAGAGCCAGTATTACCTGGCTGAGAAGCACCTTTTCCAGCACCCTCCTGAGCTCATTAA
 TACCATCAGCACAACCTCTGCAGGACTCATATCCAGGCTCAAATATCCAGTGTCTCAACAA
 AACAAGATGCACCTTCCACTGCAGGCTGGGATACGGATCATGGGAAATGATCCAAAG
 GACCTGACCTTCTTGAAGGAGCTGGGACTGGACAATTTGGGGTGTGAGTATGGGAAA
 TGGAGAGGCCAGTACGACGTGGCCATCAAGATGATCAAAGAAGGCTCCATGTCTGAAGT
 GAATTCATTGAAGAAGCCAAAGTCAATGATGAATCTTTCCATGAGAAGCTGGTGCAGTTG
 TATGGCGTCTGCACCAAGCAGCGCCCATCTTCATCATCACTGAGTACATGGCCAATGGC
 TGCTCTGAACTACCTGAGGGAGATGCGCCACCGCTTCCAGACTCAGCAGCTGTAGAG
 ATGTGCAAGGATGTCTGTGAAGCCATGGAATACCTGGAGTCAAAGCAGTTCCTTACCAG
 GACCTGGCAGCTCGAACTGTTTGGTAAACGATCAAGGAGTTGTTAAAGTATCTGATTTT
 GGCCTGTCAGGTATGCTCTGGATGATGAATACACAAGCTCAGTAGGCTCCAAATTTCCA
 GTCCGGTGGTCCCACCGAAGTCTGATGATAGCAAGTTCAGCAGCAAATCTGACATT
 TGGGCTTTTGGGTTTTGATGTGGGAAATTTACTCCCTGGGGAAGATGCCATATGAGAGA
 TTTACTAACAGTGAAGTCTGTAACACATTGCCCAAGGCCTACGTCTCTACAGGCCTCAT
 CTGGCTTCAGAGAAGGTATATACCATCATGTACAGTTGCTGGCATGAGAAAGCAGATGAG
 CGTCCCCTTTCAAAATCTTCTGAGCAATATTCTAGATGTCATGGATGAAGAATCTGA

5' Read Nucleotide Sequence: >OriGene 5' read for NM_000061 unedited
 TTCAAATTTGTATACGACTCCTATAGGGCGGCCGATTTCGGCACGAGGCCAGGGCCAGT
 GTCTGCTGCGATCGAGTCCCACCTTCCAAGTCTGGCATCTCAATGCATCTGGGAAGCTA
 CCTGCATTAAGTCAGGACTGAGCACACAGTGAATCCAGAAAAGAAGCTATGGCCGC
 AGTGATTCTGGAGAGCATCTTTCTGAAGCGATCCCAACAGAAAAAGAAAACATCACCTCT
 AAACCTCAAGAAGCGCCTGTTTCTCTTGACCGTGCACAACTCTCCTACTATGAGTATGA
 CTTTGAACGTGGGAGAAGAGGCAGTAAGAAGGGTTCAATAGATGTTGAGAAGTCACTTG
 TGTTGAAACAGTGGTTCCTGAAAAAATCCTCCTCCAGAAAGACAGATCCGAGAAGAGG
 TGAAGAGTCCAGTGAATGGAGCAAATTTCAATCATTGAAAGGTTCCCTTATCCCTTCCA
 GGTGATATGATGAAGGGCCTCTACGTCTTCTCCCAACTGAAGAACTAAGGAAGCG
 GTGGATTACCCAGCTCAAAAACGTAATCCGGTACAACAGTGATCTGGTTCAGAAATATCA
 CCCTTGCTTCTGGATCGATGGGAGTATCTCTGCTGCTCTCAGACAGCCAAAAATGCTAT
 GGGCTGCCAAATTTTGGAGAACAGGAATGGAAGCTTANNACCTGGNGAGTCTCACCGGAA
 GACANAAAAGCCTCTTCCCAACGCCTNGAGAGGACCAGATCTTTGAAAGCCACTACCG
 NCTGAGCCAGCAGCAGCACCAGTCTCCACCAGTGAAGTGTGGCCCCCTATG
 ATTACATGCCNATGATGCANATGATCTACAGCTGCCGGAGGGTATGAATTTTATCTT
 GGNAGAAAAGCACTTACATGGTGGAGAGCCCGAGAAAA

3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000061 unedited GCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTCAAGCTTTCTAGTAATTTTATTT TATCAAAACACCCCTCCCCTCCATCTTTATGACACCATTTCACTTTGCCAAATTCGGTC CACCCCCACACACACCCCCCAAGCTTTACCAAATGCCTACTCAAAGAGCTGTTGGACCC CTTTGTGCGGCTATTTACATCCTCCCTCCTAAAAAATATTTTCATCGCAAATTCAGTCTG TCTTAATTCTCTCGGAAATTTAGGCACAATAATTTCTTGGCCTTTGCTCAAAGCCAC TATCCCAGGGAATCAAAGAAGAGGTGCATCCCAGATGTAAGAGGGGCCTTTGTGTATT GAGTGGGAGCACAAAGGCTCCAGGGCTCCTAAGCTTGGGATTTCTCTGAGAAAGTGAAA TTGGGGCTTGTGGAGAAGAGAAGTANAACCAAGAAGCTTATTGGCGAGCTCAGGATTCTT CATCCATGACATCTAGAATATTGCTCAGAAGAATTTGAAAGTGGGACGCTCATCTGCTT TCTCATGCCAGCAACTGTACATGATGGTATATACCTTCTCTGAAGCCAGATGAGGCCTGT ANAGACGTAGGCCTTGGCAATGTGTTCCAGCAGTCTCACTGTTAGTAAATCTCTATATG GCATCTTCCCAGGGAGTAAATTTCCCACATAAAACCCCAAAAGCCAAAGCCAGATTT GCTGCTGAACTTGATACATCAGGACTTCCGTGGGGACCACCGGACTGGAATTTGGACG CTACTGAGCTTGGGTATTCACATCCCGGACACTCTGCACAGCGGAAATAGATACTTTT ACACTTCTTGACCGTTAACAAACAAGTTCAACCGTCAAGCCTCGTGGAGGGACCGCTTC CACCTCCGGTTCCAGGGTTTCCACCATCTTGCCACCTATCATCGGCTGCCTCGGAGC GGGGCCGCTCCCCTCAGCAGCT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_000061
Insert Size:	2790 bp
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>
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:	<ol style="list-style-type: none"> 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.
RefSeq:	<u>NM_000061.1, NP_000052.1</u>

RefSeq Size:	2591 bp
RefSeq ORF:	1980 bp
Locus ID:	695
UniProt ID:	Q06187
Cytogenetics:	Xq22.1
Domains:	ptkinase, 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:	<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> <p>Transcript Variant: This variant (1) encodes isoform 1.</p>