

Product datasheet for **MC202055**

Btk (NM_013482) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Btk (NM_013482) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Btk
Synonyms:	A1528679; xid
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC053392 sequence for NM_013482
AAGAGGTAATCCAGTCTGGCATCTCACGACGTCTGGGGAGCTACCTGCATTAAGTCAGAACTGAGTACA
CAAACAAGTTCAGAGAGAGGAAGCCATGGCTGCAGTGACTGGAGAGCATCTTTCTGAAGCGCTCCCA
GCAGAAAAAGAAAAATCACCTTTAAACTTCAAGAAGCGCTGTTTCTTGGACTGTACACAACTTTCA
TACTATGAATATGACTTTGAACGTGGGAGAAGAGGCAGTAAGAAAGGTTCAATAGATGTTGAGAAGATCA
CCTGTGTTGAAACAGTAATTCCTGAAAAAATCCCCACCAGAAAGACAGATCCGAGGAGAGGTGAGGA
GTCTAGTGAATGGAACAGATTTCAATCATTGAAAGGTTCCCGTACCCATTCCAGGTTGTATATGATGAA
GGACCTCTCTATGTTTTCTCCCAACTGAAGAGCTGAGAAAGCGCTGGATTCAACCAGCTCAAAAATGTAA
TCCGGTGAATAGTGACCTGGTACAGAAATACCATCCTTGCTTCTGGATTGATGGACAGTATCTCTGCTG
CTCTCAGACAGCCAAGAATGCTATGGGCTGCCAAATTTTGGAGAACAGGAATGGAAGCTTAAACCTGGG
AGTTCTCATCGAAAAACGAAAAAGCCTTCTCCCTACCCAGAGGAAGATCAGATCTTGAAAAACCGC
TCCCCCGGAGCCAACAGCAGCACCAATCTCCACAACCGAGCTGAAAAAGGTCGTGGCCCTTTATGATTA
CATGCCAATGAACGCAATGACTTACAATTGCGAAAGGGCGAGGAGATTTTTATCCTGGAGGAGAGCAAC
CTACCGTGGTGGCGAGCAGAGATAAAATGGGCAGGAAGGCTACATCCCAAGTAACTATATCACTGAAG
CTGAGGACTCCATAGAGATGTATGAGTGGTATTCCAAGCATGACTCGAAGTCAAGCTGAGCAACTGCT
AAAGCAAGAGGGGAAAGAAGGAGGTTTCATTGTGCGGAGACTCCAGCAAAGCTGAAAAATACACCGTGCT
GTGTTTGCTAAATCTACTGGGGAGCCTCAAGGGTGATCCGCCATTACGTTGTGTGTTCCACGCCACAGA
GCCAGTATTACCTGGCTGAGAAACACCTTTCAGCACCATCCCTGAGCTCATTAACCTACCATCAACACAA
CTCTGCAGGCCTCATATCCAGGCTGAAATATCCTGTGTCTAAACAAAACAAAACGCGCCTTCTACTGCA
GGCCTGGGCTATGGATCATGGGAAATGATCCAAGGACCTCACCTTCTGAAGGAGCTTGGGACTGGAC
AATTCGGTGTGCGTGAATATGGGAAGTGGAGGGGCCAATATGATGTGGCCATCAAGATGATCAGAGAAGG
TTCCATGTCGGAGGATGAATTCATTGAAGAAGCCAAAGTCATGATGAATCTTTCCCATGAGAAGCTGGTG
CAGTTGTATGGCGTCTGCACCAACAACGCCCATCTTCATCATCACCGAGTACATGGCTAATGGCTGCC
TCTTGAACCTACCTGAGGGAGATGCGGCACCGCTTCCAGACACAGCAGCTGCTTGAGATGTGCAAAAGATGT
CTGTGAAGCAATGGAATACTTGGAGTCAAGCAGTTCCTTACAGAGACCTGGCAGCTCGAACTGTTTG
GTAACAGTCAAGGAGTTGTGAAAGTATCTGACTTTGGCCTGTCTAGGTATGTCCTTGATGATGAGTACA
CCAGCTCTGTAGGCTCCAAGTTTCCAGTCCGGTGGTCTCCACCAGAAGTGCTTATGTATAGCAAGTTCAG
CAGCAATCTGACATCTGGGCTTTTGGGTTTTAATGTGGGAGATCTACTCCCTGGGGAAGATGCCGTAT
GAGAGATTTACTAACAGTGAAGCAGCAGAACACATTGCTCAAGGCTTACGTCTCTACAGGCCCTCATCTGG
CATCAGAGAGGGTATATACCATCATGTACAGCTGCTGGCAGGAAAGCAGATGAACGCTCCTAGTTTCAA
AATTCTCTTGAGTAACATTCTAGATGTGATGGATGAAGAATCCTGAGCTGGCTGCTAAGCTCCGTGGATC
TCTCCTCTCTCTACAAAACCTAATTCATGTTTCTGAGGAGTCCCTGGCTGCAGGGCTCTAGCCTT
CCATGCGCCTACTGAATGCATGAAGAGCCTGGACATCTAGGAATGCCTTTCTCCTCTCGTTCCCTGGCA
TACTGCTTAAGCAAAGGTCAAGGGATTCTGTGCATAGTATTACCCATAACTTCAAGACTCCTAACAGA
CTGAATTGGGGATGGGAACACTTTGGGGAGGGAAAACTGTAATAGCTCCACTAGTTGTCCAACAGCTT
GTTGGTTAAGTGTAAAGAGTGGTGGTGGTGGGGGGTAGGAATGTTGCCATTAATAATGGGTTGTTTT
GTTACAATAAAATTTGGAAAGAGTAAGAAAAAAG

Restriction Sites: RsrII-NotI

ACCN: NM_013482

Insert Size: 1980 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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.

RefSeq: [BC053392](#), [AAH53392](#)

RefSeq Size: 2493 bp

RefSeq ORF: 1980 bp

Locus ID: 12229

UniProt ID: [P35991](#)

Cytogenetics: X 56.18 cM

Gene Summary: Non-receptor tyrosine kinase indispensable for B lymphocyte development, differentiation and signaling. Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation. After BCR engagement and activation at the plasma membrane, phosphorylates PLCG2 at several sites, igniting the downstream signaling pathway through calcium mobilization, followed by activation of the protein kinase C (PKC) family members. PLCG2 phosphorylation is performed in close cooperation with the adapter protein B-cell linker protein BLNK. BTK acts as a platform to bring together a diverse array of signaling proteins and is implicated in cytokine receptor signaling pathways. Plays an important role in the function of immune cells of innate as well as adaptive immunity, as a component of the Toll-like receptors (TLR) pathway. The TLR pathway acts as a primary surveillance system for the detection of pathogens and are crucial to the activation of host defense. Especially, is a critical molecule in regulating TLR9 activation in splenic B-cells. Within the TLR pathway, induces tyrosine phosphorylation of TIRAP which leads to TIRAP degradation. BTK plays also a critical role in transcription regulation. Induces the activity of NF-kappa-B, which is involved in regulating the expression of hundreds of genes. BTK is involved on the signaling pathway linking TLR8 and TLR9 to NF-kappa-B. Transiently phosphorylates transcription factor GTF2I on tyrosine residues in response to BCR. GTF2I then translocates to the nucleus to bind regulatory enhancer elements to modulate gene expression. ARID3A and NFAT are other transcriptional target of BTK. BTK is required for the formation of functional ARID3A DNA-binding complexes. There is however no evidence that BTK itself binds directly to DNA. BTK has a dual role in the regulation of apoptosis. [UniProtKB/Swiss-Prot Function]