

Product datasheet for **MC216930**

Blk (NM_007549) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Blk (NM_007549) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Blk
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC216930 representing NM_007549
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGCTGCTGAGCAGCAAGAGGCAGGTCAGTGAGAAGGGCAAGGGCTGGAGCCCCGTGAAGATCCGCA
 CCCAGGACAAGGCTCCCCACCCCTGCCACCCCTGGTTGTCTTCAACCACCTTGCCCCACCATCTCCTAA
 CCAGGACCCAGATGAAGAGGAGCGTTTTGTGGTGGCTCTGTTTACTATGCCGCTGTGAATGACAGGGAC
 CTTCAGGTGCTGAAGGGTGAGAAGCTCCAGGTCTTGAGGAGCACTGGAGACTGGTGGTTGGCCAGGTCAC
 TCGTCACAGGAAGAGAAGGTTATGTGCCAGCAACTTTGTGGCCCCAGTAGAGACTCTGGAAGTAGAAAA
 ATGTTTCTTCAGGACCATCAGCCGGAAGGATGCTGAGAGGCAGTTGTGGCTCCGATGAACAAGGCCGGC
 TCCTTTCTCATCAGAGAGAGTGAGAGCAATAAAGGTGCCTTTCCCTGTCCGTGAAAGATATCACCACCC
 AGGGGGAGGTGGTCAAGCACTATAAGATCCGATCACTGGACAATGGAGGCTATTACATCTCCCCCGGAT
 CACCTTTCCACCCCTCCAGGCCCTGGTGCAGCACTATTCAAAGAAAGGGGATGGTTTGTGTGAGAAGTTG
 ACTCTGCCCTGTGTGAACCTGGCCCCGAAGAACCTTTGGGCCCAAGATGAATGGGAAATCCCCAGGCAGT
 CTCTCAAGTTGGTCCGGAACTTGGGTCTGGGCAGTTTGGCGAAGTCTGGATGGGTTATTACAAAAATAA
 CATGAAGGTGGCCATCAAGACCCGAAGGAGGGAACCATGTACCAGGAAAGCTTCTGGGCGAGGCCAAC
 GTGATGAAAACCCCTGCAGCATGAGAGGCTGGTTCGTCTACGCTGTGGTACCAGAGAGCCATTTACA
 TCGTCACTGAATACATGGCCAGAGGATGCTTGTGGATTTCTGAAGACCGATGAAGGTAGCAGGTTGTC
 CCTTCCAAGGCTGATTGACATGTGAGCCAGGTTGCAGAGGGGATGGCTTACATAGAGCCGATGAATTCC
 ATCCACCGTGACCTGCGGGCAGCCAACATCCTGGTGTCTGAGACGTTGTGCTGCAAAATCGCTGACTTCG
 GCTTGGCCAGGATCATTGACAGTGAATACACTGCCCAAGAGGGGGCAAGTTCCCCATCAAGTGGACCGC
 CCGGAGGCCATCCACTTCGGGGTGTAAACCATCAAGGCTGATGTGTGGTCTTCGGAGTCTTGCTGATG
 GAGATTGTACCTATGGGCGCTTCCCTACCCAGGAATGAGCAACCCTGAGGTATCCGTAGCCTGGAGC
 ACGGCTACCGAATGCCATGCCCGGAGACATGTCCACCGGAGTTGTACAATGATATCATCACTGAGTGCTG
 GCGGGGCCGCGCAGAGGAGCGGCCTACCTTTGAGTTCTCGAGTCGGTGTGGAGGACTTCTACACAGCC
 ACGGAGGGCCAATATGAGCTGCAGCC**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_007549
- Insert Size:** 1500 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: [NM_007549.2](#), [NP_031575.2](#)

RefSeq Size: 2475 bp

RefSeq ORF: 1500 bp

Locus ID: 12143

UniProt ID: [P16277](#)

Cytogenetics: 14 33.25 cM

Gene Summary: Non-receptor tyrosine kinase involved in B-lymphocyte development, differentiation and signaling. B-cell receptor (BCR) signaling requires a tight regulation of several protein tyrosine kinases and phosphatases, and associated coreceptors (PubMed:2404338, PubMed:7690139, PubMed:7608542, PubMed:9636152, PubMed:14662906, PubMed:12563261). Binding of antigen to the B-cell antigen receptor (BCR) triggers signaling that ultimately leads to B-cell activation (PubMed:2404338, PubMed:7690139, PubMed:7608542, PubMed:14662906, PubMed:12563261). Signaling through BLK plays an important role in transmitting signals through surface immunoglobulins and supports the pro-B to pre-B transition, as well as the signaling for growth arrest and apoptosis downstream of B-cell receptor (PubMed:2404338, PubMed:7690139, PubMed:7608542, PubMed:14662906, PubMed:12563261). Specifically binds and phosphorylates CD79A at 'Tyr-188' and 'Tyr-199', as well as CD79B at 'Tyr-196' and 'Tyr-207' (PubMed:7592958, PubMed:9177269). Phosphorylates also the immunoglobulin G receptor FCGR2 (By similarity). With FYN and LYN, plays an essential role in pre-B-cell receptor (pre-BCR)-mediated NF-kappa-B activation (PubMed:14662906, PubMed:12563261). Contributes also to BTK activation by indirectly stimulating BTK intramolecular autophosphorylation (PubMed:7565679). In pancreatic islets, acts as a modulator of beta-cells function through the up-regulation of PDX1 and NKX6-1 and consequent stimulation of insulin secretion in response to glucose (By similarity). Phosphorylates CGAS, promoting retention of CGAS in the cytosol (By similarity).[UniProtKB/Swiss-Prot Function]