

Product datasheet for **MC224423**

Blm (NM_001042527) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Blm (NM_001042527) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Blm
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224423 representing NM_001042527 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTGCTGTTCTCTGAACAATCTACAAGAACAACCTACAGCGACTCAGCCAGAAAACCTTAATAATC
AACCCAGCCTTTCAAACCAAAAATCTTTAGTTTTACTTTTTAAAAAGAAAACATCAGAGGGTGATGTGC
TGTCAGTGTGTCCGTAGTAAAAACACCTGCGTTAAGTGATAAAGATGTGAACGTGTCTGAGGCCTTT
TCATTCAGTGTGCTCCACTCCACAACCAAGCAGCAGGCAAAGATTGAAGGCTTCTTTAAACATTTC
CTGGAAGGCAGCAAAGCAAGGGGACCTGCTCTGAGCCGTCAGTCCGGCCACGGTACAGACTGCTCAGGA
CACTTTGTGCACTACCCCAAAACCCCACTGCGAAGAACTGCCCGTGGCTGTTTTCAAGAAATTAGAA
TTTAGTCTTCTGCAGACTCCCTCAGTGACTGGGCTGATATGGATGACTTTGATATGTCAGCATCAGATG
CGTTTGCTTCACTGGCTAAAAATCCTGCCACAAGAGTAAGCACCGCTCAGAAAATGAAAAAGACTAAGAG
AAACTTCTTTAAACCACCACCTCGTAAAGCCAATGCAGTAAAGACTGACTTGACTCCTCCCTCCCCGAA
TGCCTGCAAGTGGATTTAACGAAGGAATCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG
ACTGCCTGAGCAGGGATGTGATCTGCATTGACAATGATTCTGCTTCTGAAGAGCTCACGGAGAAAGACAC
GCAGGAAAGCCAGTCTTTGAAAGCTCACTTGGGAGCTGAAAGAGGTGACAGTGAAAAGAAGGCCATGAA
GACGAAGCTGTGTCCATTTCAGTTCAGAACACTGAATACTTTGAACACAATGACAATGATTATGATATAG
ATTTTGTTCACCTTCTCCAGAAGAAATCATCTCCACTGCTTCTTCTCGTTGAAATGTTCCAGTATGTT
AAAGGATCTTGATGACTCTGACAAAGAAAGGGCATTCTTAGCACCTCAGAAGAGCTTCTGTCAAACCA
GAGGAAATGACCACACAAGTCTGATGCAGGAACCAAGTAAAGACTGTGATGCCAGCAGATACGCATAC
AGCAGCAGCTTATTCATGTGATGGAGCAGCATCTGTAAGTTAGTTGATACTGTTCTACTGATGAAGTGA
AGCTTTGAATGTGGGACCGAATTGCTTCAACAACGAAACATAAGGAGGAAGCTCCTAGCTGAAGCAGGT
TTAATGAAAATGACGTACAGACTTCTGGGTTCTCTGTGGAGGCACAGGCCTGATTCAGTATGATAACACAG
TGCAAGGCGACTCCTGCCCTGTGGGCATCCTAATAAAGAGTTAAATTCTCCATACCTTCTCACCATTTC
CCCTTCCACTGAGGAATGTTTACCACACCACACTCCAGGAAAGACAGGATTCTCAGCCACCCCGAAGAAT
CTCTTTGAAAGGCCGTTATTGAATTCCTTTACAGAAGTCTTTGTAAGTAGCAACTGGGCTGAAACAC
CAAGGATGAAAACAGGAACGAAAGCACTGACTTCCCAGGGAGTGTCTCACCAGCACCAGTGTGAAAGC
TCAGAGTAAACAAGCTGCTTCAGGATGGAACGTAGAGAGACACGGCCAGGCTTCTATGATATCGATAAC



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TTTAATATTGATGACTTTGATGATGATGATGATGATGATGACTGGGAAAACATAATGCACAATTTCCAG
 CCAGCAAATCTTCCACAGCCACCTACCCACCCATCAAGGAAGGTGGGCCAGTTAAATCTCTCAGAAAAG
 GATTTCTTCAGCCAAGGCAAAGTTTCTTCCAGTGGTATCAACCGCTCAAAATACAAAACCTCAGAGTCA
 ATTCAGAAATTGCTCTGATAAGCTGGCCAAAATTTATCATCAAAAAATCCAAAACATGAACATTTTCAA
 GTCTTAATTTTCTCATACAAAAGAAATGATGAAGATTTCCATAAGAAATTTGGCTTGCATAATTTTAG
 AACTAATCAGCTAGAGGCGATCAATGCTGCGCTGCTTGGTGAAGACTGCTTATCCTAATGCCACTGGA
 GGAGGTAAGTGTGTGCTACCAGCTCCCTGCCTGTGTTTCTCCTGGGGTCAACAATTGCATTTCTCCCT
 TGAGATCACTAATAGTAGATCAAGTCCAAAAGCTGACTTCTTTGATATCCAGCTACATATCTGACAGG
 GGATAAGACTGACTCAGAAGCTGCAAATTTTACCTCCAATTATCCAAAAAGACCCAATCATCAAGCTT
 TTGATGTTACTCCAGAGAAGGTCTGTGCAAGTAACAGGCTGATTTCTACTCTGGAGAATCTGTATGAGC
 GGAAGCTCTTGGCACGTTTTGTCTTGTGAAGCGCATTGTGTGAGTCAAGTGGGGTCAATTTTCTGCA
 AGATTACAAAAGGATGAATATGCTTCGCCAGAAGTTTCTTCTGTTCCAGTGTGGCCCTCACGGCCACA
 GCGAACCCAGGGTCCAGAAGGACATCCTCACTCAGCTGAAGATCCTCAGACCTCAGGTGTTTAGCATGA
 GCTTTAACAGACACAATCTGAAGTACTATGTATTACCCAAGAAGCCAAAAAAGTAGCATTGATGCTCT
 AGAGTGGATCAGAAAGCATCACCTTATGACTCGGGGATAATTTACTGCCTCTCCAGGAGGAATGTGAC
 ACAATGGCTGACTTTACAGAGAGAAGGCCTGGCTGCCCTGGCTTACCATGCGGGCCTCAGTACTCTG
 CCAGAGATGAGGTGCAGCACAAGTGGATCAACCAGGACAAGTCCAGGTTATCTGTGCGACAATTGCGTT
 TGGAAATGGGAATTGACAAACCTGACGTGCGATTTGTGATTCATGCATCTTCTCTAAATCTATGGAGGT
 TATTATCAAGAATCCGGCCGAGCTGGAAGAGATGGGGAATATCTCACTGCGTGTCTTCTATACATATC
 ATGATGTGACCAGACTGAAGAGACTTATAATGATGGAAAAAGATGGAAATATCATAAGGAAACTCA
 CGTCAATAATCTATAGCATGGTACTTACTGTGAAAACATAACGGAATGCAGAAGAATACAGCTTTTA
 GCTTACTTTGGTAAAAAGGATTCAACCCTGATTTTGTAAAGAAATACCCAGATGTTTCTGTGACAATT
 GCTGTAAAAACAAAGGATTATAAAAACAAAAGATGTGACTGATGACTGAAAAATATTATAAGATTTGTTCA
 AGAACACAGTTTATCACCAGGAACAAGAAATATAGGACCTGCTGGAAGATTTACTCTGAACATGCTGGTC
 GACATTTTCTTGGGAGCAAGAGTGCAAAAAGTTAAGTCTGGAATTTTGGAAAGGGGACTACATATTCAC
 GACATAATGCCGAAAGACTTTTTAAAAAGCTGATTCTAGACAAAACTCGGATGAAGACTTATATATCAA
 TGCCAATGACCAACCAATTGCCTATGTGATGCTAGGAACAAAAGCCACAGTGTGCTGAGTGGCCACTTG
 AAGGTGGACTTCATGAAACGGAAAATCCAGCAGTATTAACAAAACAAAAGCTTTAGTGGCCAAAGTAT
 CCCAGAGAGAAGAGGTAGTTAAGAAATGTCTTGGAGAACTACAGAGGTCTGCAAAATGCTGGGAAAGT
 CTTTGGTGTCCATTACTTCAATATTTTAAACAGCCCACTCAAAAAGCTTGCAGAATCTTTATCTTCT
 GATCCTGAGGTTTTGCTTCAGATTGATGGTGTACCGAAGACAAGCTGGAAAAATATGGTGCAGAAGTGA
 TTCCAGTATTACAGAAGTACTCAGAATGGACAGTGCCAGCTGAGGATGGTTCCCCAGGCGCCAGAGGCGC
 CCCAGAGGACTGAGGAGGAGGAGGAGGAAGCGCCTGTATCTTCTCACTACTTTGCAAAATCAAAGTAA
 AATGAAAGAAAGAGAAAGAAAATGTGAGCCACCCATAAGCCCAAGAGGAGAAAGAACTAGTTACGGTGGCT
 TCAGAGCAAAGGGGGGCTCTACTACATGCAGAAAAACGACTTCTAAAAGTAAATCTATGGTGAAGTGG
 ATCCCGCTCGGCCTCATGTGCTTCTCAGGCAACATCATCAGCCAGTAGAAAACTGGGGATTATGGCTCT
 CCAAAGCTGTAATAGAAGCTTCTCAGGCCTCATATGCCTTCTCTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001042527

Insert Size: 4251 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:	<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_001042527.2, NP_001035992.1</u>
RefSeq Size:	4598 bp
RefSeq ORF:	4251 bp
Locus ID:	12144
UniProt ID:	<u>O88700</u>
Cytogenetics:	7 45.65 cM
Gene Summary:	<p>ATP-dependent DNA helicase that unwinds single- and double-stranded DNA in a 3'-5' direction (PubMed:9840919). Participates in DNA replication and repair (By similarity). Involved in 5'-end resection of DNA during double-strand break (DSB) repair: unwinds DNA and recruits DNA2 which mediates the cleavage of 5'-ssDNA (PubMed:9840919). Negatively regulates sister chromatid exchange (SCE) (PubMed:9840919, PubMed:27010503). Stimulates DNA 4-way junction branch migration and DNA Holliday junction dissolution. Binds single-stranded DNA (ssDNA), forked duplex DNA and DNA Holliday junction (By similarity). [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region, and uses a downstream translational start codon, compared to variant 1. The resulting isoform (2) is shorter at the N-terminus, compared to isoform 1.</p>