

Product datasheet for **SC300002**

BLM (NM_000057) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: BLM (NM_000057) Human Untagged Clone
Tag: Tag Free
Symbol: BLM
Synonyms: BS; MGRISCE1; RECQ2; RECQL2; RECQL3
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000057 edited
 ATGGCTGCTGTTCCCTCAAATAATCTACAGGAGCAACTAGAACGTCAGCCAGAACA
 CTTAATAATAAAATTAAGTCTTTCAAACCAAATTTTCAGTTTTCACTTTTAAAAAGAAA
 ACATCTTCAGATAACAATGTATCTGTAACATAATGTGTCAGTAGCAAAAACACCTGTATTA
 AGAAATAAAGATGTTAATGTTACCGAAGACTTTTCCTTCAGTGAACCTCTACCCAACACC
 ACAAAATCAGCAAAGGGTCAAGGACTTCTTTAAAAATGCTCCAGCAGGACAGGAAACACAG
 AGAGGTGGATCAAATCATTATTGCCAGATTTCTTGCCAGACTCCGAAGGAAGTTGTATGC
 ACTACCAAAAACACCAACTGTAAAGAAATCCCGGGATACTGCTCTCAAGAAATTAGAA
 TTTAGTCTTCCACAGATCTTTAAGTACCATCAATGATTGGGATGATATGGATGACTTT
 GATACTTCTGAGACTTCAAATCATTTGTTACACCACCCAAAGTCACTTTGTAAGAGTA
 AGCACTGCTCAGAAATCAAAAAGGGTAAGAGAACTTTTTTAAAGCACAGCTTTATACA
 ACAAACACAGTAAAGACTGATTTGCCTCCACCCTCCTCTGAAAGCGAGCAATAGATTTG
 ACTGAGGAACAGAAAGGATGACTCAGAATGGTTAAGCAGCGATGTGATTTGCATCGATGAT
 GGCCCCATTGCTGAAGTGCATATAAATGAAGATGCTCAGGAAAGTCACTCTGAAAACCT
 CATTGGAAGATGAAAGAGATAATAGCGAAAAGAAGAATTTGGAAGAAGCTGAATTA
 CATTCAACTGAGAAAGTCCATGTATTGAATTTGATGATGATGATTATGATACGGATTTT
 GTTCCACCTTCTCAGAAGAAATATTTCTGCTTCTTCTCTCTCTCAAATGCCTTAGT
 ACGTTAAAGGACCTTGACACCTTGACAGAAAAGAGGATGTTCTTAGCACATCAAAGAT
 CTTTTGTCAAACCTGAGAAAATGAGTATGCAGGAGCTGAATCCAGAAACCAGCACAGAC
 TGTGACGCTAGACAGATAAGTTTACAGCAGCAGCTTATTCAATGTGATGGAGCACATCTGT
 AAATTAATTGATACTATTCTGATGATAAACTGAACTTTTGGATTGTGGGAACGAACTG
 CTTGAGCAGCGGAACATAAGAAGGAACTTCTAACGGAAGTAGATTTTAAATAAAAGTGT
 GCCAGTCTTCTGGCTCATTGTGGAGATACAGGCCTGATTCACCTGATGGCCCTATGGAG
 GGTGATTCCTGCCCTACAGGGAATTCTATGAAGGAGTTAAATTTTTACACCTTCCCTCA
 AATTCTGTTTCTCTGGGACTGTTTACTGACTACCACCTAGGAAAGACAGGATTCTCT
 GCCACCAGGAAGAATCTTTTGAAGGCCTTTATTCAATACCCATTTACAGAAGTCCCTT
 GTAAGTAGCAACTGGGCTGAAACACCAAGACTAGGAAAAAAAAAATGAAAGCTCTTATTTT



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CCAGGAAATGTTCTCACAAAGCACTGCTGTGAAAGATCAGAATAAACATACTGCTTCAATA
 AATGACTTAGAAAAGAGAAAACCCACCTTCTATGATATTGATAATTTTGACATAGATGAC
 TTTGATGATGATGACTGGGAAGACATAATGCATAATTTAGCAGCCAGCAAATCTTCC
 ACAGCTGCCTATCAACCCATCAAGGAAGGTCGGCCAATTAATCAGTATCAGAAAAGACTT
 TCCTCAGCCAAGACAGACTGTCTCCAGTGTCTACTGCTCAAATATAAACTTCTCA
 GAGTCAATTGAGAATTACTGACAAGTCAGCACAAAAATTTAGCATCCAGAAATCTGAAA
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 CTTGGTGAAGACTGTTTTATCCTGATGCCGACTGGAGGTGGTAAGAGTTTGTGTACCAG
 CTCCTGCCTGTGTTTCTCCTGGGGTCACTGTTGTCAATTTCTCCCTTGAGATCACTTATC
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 TGTGACACCATGGCTGACACGTTACAGAGAGATGGGCTCGCTGCTTGTGTTACCATGCT
 GGCCTCAGTGATTCTGCCAGAGATGAAGTGCAGCAGAAGTGGATTAATCAGGATGGCTGT
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 GTGATTCATGCATCTCTCCCTAAATCTGTGGAGGTTACTACCAAGAATCTGGCAGAGCT
 GGAAGAGATGGGAAATATCTCACTGCCTGCTTTTCTATACCTATCATGATGTGACCAGA
 CTGAAAAGACTTATAATGATGGAAAAAGATGAAAACCATCATACAAGAGAAACTCACTTC
 AATAATTTGTATAGCATGGTACATTACTGTGAAAAATAACGGAATGCAGGAGAATACAG
 CTTTTGGCCTACTTTGGTAAAAAGGATTAATCCTGATTTTTGTAAAGAACACCCAGAT
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 GTGAAAAGTATTGTAAGATTTGTTCAAGAACATAGTTCATCACAAGGAATGAGAAATATA
 AAACATGTAGGTCCTTCTGGAAGATTTACTATGAATATGCTGGTCGACATTTTCTGGGG
 AGTAAGAGTGCAAAAATCCAGTCAGGTATATTTGGAAAAGGATCTGCTTATTCACGACAC
 AATGCCGAAAGACTTTTTAAAAAGCTGATCTTGACAAGATTTTGGATGAAGACTTATAT
 ATCAATGCCAATGACCAGGCGATCGCTTATGTGATGCTCGGAAATAAAGCCCAAACCTGTA
 CTAATGGCAATTTAAAGGTAGACTTTATGAAAACAGAAAATCCAGCAGTGTGAAAAAA
 CAAAAAGCGTTAGTAGCAAAAGTGTCTCAGAGGGAAGAGATGGTTAAAAAATGCTTGGGA
 GAACCTACAGAAGTCTGCAAACTCTGGGGAAAGTTTTTGGTGTCCATTACTTCAATATT
 TTTAATACCGTCACTCTCAAGAAGCTTGCAGAATCTTTATCTTCTGATCCTGAGGTTTTG
 CTTCAAATGATGGTGTACTGAAGACAACTGGAAAAATATGGTGCGGAAGTGATTTCA
 GTATTACAGAAATACTCTGAATGGACATCGCCAGCTGAAGACAGTTCACCAGGGATAAGC
 CTGTCCAGCAGCAGAGGCCCGGAAGAAGTGCCGCTGAGGAGCTCGACGAGGAAATACCC
 GTATCTTCCCACTACTTTGCAAGTAAAACCAGAAATGAAAGGAAGAGGAAAAAGATGCCA
 GCCTCCCAAAGGTCTAAGAGGAGAAAAACTGCTTCCAGTGGTTCCAAGGCAAAGGGGGGG
 TCTGCCACATGTAGAAAGATATCTTCCAAAACGAAATCCTCCAGCATCATTGGATCCAGT
 TCAGCCTCACATACTTCTCAAGCGACATCAGGAGCCAATAGCAAATTTGGGGATTATGGCT
 CCACCGAAGCCTATAAATAGACCGTTTTCTTAAGCCTTCATATGCATTCTCATAA

Restriction Sites: Please inquire
ACCN: NM_000057
Insert Size: 4300 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>
OTI Annotation:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
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:	<p>NM_000057.1, NP_000048.1</p>
RefSeq Size:	<p>4437 bp</p>
RefSeq ORF:	<p>4254 bp</p>
Locus ID:	<p>641</p>
UniProt ID:	<p>P54132</p>
Cytogenetics:	<p>15q26.1</p>
Protein Families:	<p>Druggable Genome, Stem cell - Pluripotency</p>
Protein Pathways:	<p>Homologous recombination</p>

Gene Summary:

The Bloom syndrome is an autosomal recessive disorder characterized by growth deficiency, microcephaly and immunodeficiency among others. It is caused by homozygous or compound heterozygous mutation in the gene encoding DNA helicase RecQ protein on chromosome 15q26. This Bloom-associated helicase unwinds a variety of DNA substrates including Holliday junction, and is involved in several pathways contributing to the maintenance of genome stability. Identification of pathogenic Bloom variants is required for heterozygote testing in at-risk families. [provided by RefSeq, May 2020]

Transcript Variant: This variant (1) encodes the longest protein (isoform 1). Variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.