OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC240133

BLM (NM_001287246) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BLM (NM_001287246) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BLM
Synonyms:	BS; MGRISCE1; RECQ2; RECQL2; RECQL3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC240133 representing NM_001287246
Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC
GCCC

ATGGCTGCTGTTCCTCAAAATAATCTACAGGAGCAACTAGAACGTCACTCAGCCAGAACACTTAATAATA
AATTAAGTCTTTCAAAACCAAAATTTTCAGGTTTCACTTTTAAAAAGAAAACATCTTCAGATAACAATGT
ATCTGTAACTAATGTGTCAGTAGCAAAAACACCTGTATTAAGAAATAAAGATGTTAATGTTACCGAAGAC
TTTTCCTTCAGTGAACCTCTACCCAACACCACAAATCAGCAAAGGGTCAAGGACTTCTTTAAAAATGCTC
CAGCAGGACAGGAAACACAGAGAGGTGGATCAAAATCATTATTGCCAGATTTCTTGCAGACTCCGAAGGA
AGTTGTATGCACTACCCAAAACACACCAACTGTAAAGAAATCCCGGGATACTGCTCTCAAGAAATTAGAA
TTTAGTTCTTCACCAGATTCTTTAAGTACCATCAATGATTGGGATGATATGGATGACTTTGATACTTCTG
AGACTTCAAAATCATTTGTTACACCACCCCAAAGTCACTTTGTAAGAGTAAGCACTGCTCAGAAATCAAA
AAAGGGTAAGAGAAACTTTTTTAAAGCACAGCTTTATACAACAAACACAGTAAAGACTGATTTGCCTCCA
CCCTCCTCTGAAAGCGAGCAAATAGATTTGACTGAGGAACAGAAGGATGACTCAGAATGGTTAAGCAGCG
ATGTGATTTGCATCGATGATGGCCCCATTGCTGAAGTGCATATAAATGAAGATGCTCAGGAAAGTGACTC
TCTGAAAACTCATTTGGAAGATGAAAGAGATAATAGCGAAAAGAAGAAGAATTTGGAAGAAGCTGAATTA
CATTCAACTGAGAAAGTTCCATGTATTGAATTTGATGATGATGATTATGATACGGATTTTGTTCCACCTT
CTCCAGAAGAAATTATTTCTGCTTCTTCTTCCTCTTCAAAATGCCTTAGTACGTTAAAGGACCTTGACAC
CTCTGACAGAAAAGAGGATGTTCTTAGCACATCAAAAGATCTTTTGTCAAAACCTGAGAAAATGAGTATG
CAGGAGCTGAATCCAGAAACCAGCACAGACTGTGACGCTAGACAGATAAGTTTACAGCAGCAGCTTATTC
ATGTGATGGAGCACATCTGTAAATTAATTGATACTATTCCTGATGATAAACTGAAACTTTTGGATTGTGG
GAACGAACTGCTTCAGCAGCGGAACATAAGAAGGAAACTTCTAACGGAAGTAGATTTTAATAAAAGTGAT
GCCAGTCTTCTTGGCTCATTGTGGAGATACAGGCCTGATTCACTTGATGGCCCTATGGAGGGTGATTCCT
GCCCTACAGGGAATTCTATGAAGGAGTTAAATTTTTCACACCTTCCCTCAAATTCTGTTTCTCCTGGGGA
CTGTTTACTGACTACCACCCTAGGAAAGACAGGATTCTCTGCCACCAGGAAGAATCTTTTTGAAAGGCCT

View online »

TTATTCAATACCCATTTACAGAAGTCCTTTGTAAGTAGCAACTGGGCTGAAACACCAAGACTAGGAAAAA
AAAATGAAAGCTCTTATTTCCCAGGAAATGTTCTCACAAGCACTGCTGTGAAAGATCAGAATAAACATAC
TGCTTCAATAAATGACTTAGAAAGAGAAACCCAACCTTCCTATGATATTGATAATTTTGACATAGATGAC
TTTGATGATGATGATGACTGGGAAGACATAATGCATAATTTAGCAGCCAGCAAATCTTCCACAGCTGCCT
ATCAACCCATCAAGGAAGGTCGGCCAATTAAATCAGTATCAGAAAGACTTTCCTCAGCCAAGACAGACTG
TCTTCCAGTGTCATCTACTGCTCAAAATATAAACTTCTCAGAGTCAATTCAGAATTATACTGACAAGTCA
GCACAAAATTTAGCATCCAGAAATCTGAAACATGAGCGTTTCCAAAGTCTTAGTTTTCCTCATACAAAGG
AAATGATGAAGATTTTTCATAAAAAATTTGGCCTGCATAATTTTAGAACTAATCAGCTAGAGGCGATCAA
TGCTGCACTGCTTGGTGAAGACTGTTTTATCCTGATGCCGACTGGAGGTGGTAAGAGTTTGTGTTACCAG
CTCCCTGCCTGTGTTTCTCCTGGGGTCACTGTTGTCATTTCTCCCTTGAGATCACTTATCGTAGATCAAG
TCCAAAAGCTGACTTCCTTGGATATTCCAGCTACATATCTGACAGGTGATAAGACTGACTCAGAAGCTAC
AAATATTTACCTCCAGTTATCAAAAAAAGACCCAATCATAAAACTTCTATATGTCACTCCAGAAAAGATC
TGTGCAAGTAACAGACTCATTTCTACTCTGGAGAATCTCTATGAGAGGAAGCTCTTGGCACGTTTTGTTA
TTGATGAAGCACATTGTGTCAGTCAGTGGGGACATGATTTTCGTCAAGATTACAAAAGAATGAATATGCT
TCGCCAGAAGTTTCCTTCTGTTCCGGTGATGGCTCTTACGGCCACAGCTAATCCCAGGGTACAGAAGGAC
ATCCTGACTCAGCTGAAGATTCTCAGACCTCAGGTGTTTAGCATGAGCTTTAACAGACATAATCTGAAAT
ACTATGTATTACCGAAAAAGCCTAAAAAGGTGGCATTTGATTGCCTAGAATGGATCAGAAAGCACCACCC
ATATGATTCAGGGATAATTTACTGCCTCTCCAGGCGAGAATGTGACACCATGGCTGACACGTTACAGAGA
GATGGGCTCGCTGCTCTTGCTTACCATGCTGGCCTCAGTGATTCTGCCAGAGATGAAGTGCAGCAGAAGT
GGATTAATCAGGATGGCTGTCAGGTTATCTGTGCTACAATTGCATTTGGAATGGGGATTGACAAACCGGA
CGTGCGATTTGTGATTCATGCATCTCTCCCTAAATCTGTGGAGGGTTACTACCAAGAATCTGGCAGAGCT
GGAAGAGATGGGGAAATATCTCACTGCCTGCTTTTCTATACCTATCATGATGTGACCAGACTGAAAAGAC
TTATAATGATGGAAAAAGATGGAAACCATCATACAAGAGAAACTCACTTCAATAATTTGTATAGCATGGT
ACATTACTGTGAAAATATAACGGAATGCAGGAGAATACAGCTTTTGGCCTACTTTGGTGAAAATGGATTT
AATCCTGATTTTTGTAAGAAACACCCAGATGTTTCTTGTGATAATTGCTGTAAAACAAAGGATTATAAAA
CAAGAGATGTGACTGACGATGTGAAAAGTATTGTAAGATTTGTTCAAGAACATAGTTCATCACAAGGAAT
GAGAAATATAAAACATGTAGGTCCTTCTGGAAGATTTACTATGAATATGCTGGTCGACATTTTCTTGGGG
AGTAAGAGTGCAAAAATCCAGTCAGGTATATTTGGAAAAGGATCTGCTTATTCACGACACAATGCCGAAA
GACTTTTTAAAAAGCTGATACTTGACAAGATTTTGGATGAAGACTTATATATCAATGCCAATGACCAGGC
GATCGCTTATGTGATGCTCGGAAATAAAGCCCAAACTGTACTAAATGGCAATTTAAAGGTAGACTTTATG
GAAACAGAAAATTCCAGCAGTGTGAAAAAACAAAAAGCGTTAGTAGCAAAAGTGTCTCAGAGGGAAGAGA
TGGTTAAAAAATGTCTTGGAGAACTTACAGAAGTCTGCAAATCTCTGGGGAAAGTTTTTGGTGTCCATTA
CTTCAATATTTTTAATACCGTCACTCTCAAGAAGCTTGCAGAATCTTTATCTTCTGATCCTGAGGTTTTG
CTTCAAATTGATGGTGTTACTGAAGACAAACTGGAAAAATATGGTGCGGAAGTGATTTCAGTATTACAGA
AATACTCTGAATGGACATCGCCAGCTGAAGACAGTTCCCCAGGGATAAGCCTGTCCAGCAGCAGAGGCCC
CGGAAGAAGTGCCGCTGAGGAGCTCGACGAGGAAATACCCGTATCTTCCCACTACTTTGCAAGTAAAACC
AGAAATGAAAGGAAGAGGAAAAAGATGCCAGCCTCCCAAAGGTCTAAGAGGAGAAAAACTGCTTCCAGTG
GTTCCAAGGCAAAGGGGGGGTCTGCCACATGTAGAAAGATATCTTCCAAAACGAAATCCTCCAGCATCAT
TGGATCCAGTTCAGCCTCACATACTTCTCAAGCGACATCAGGAGCCAATAGCAAATTGGGGATTATGGCT
CCACCGAAGCCTATAAATAGACCGTTTCTTAAGCCTTCATATGCATTCTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

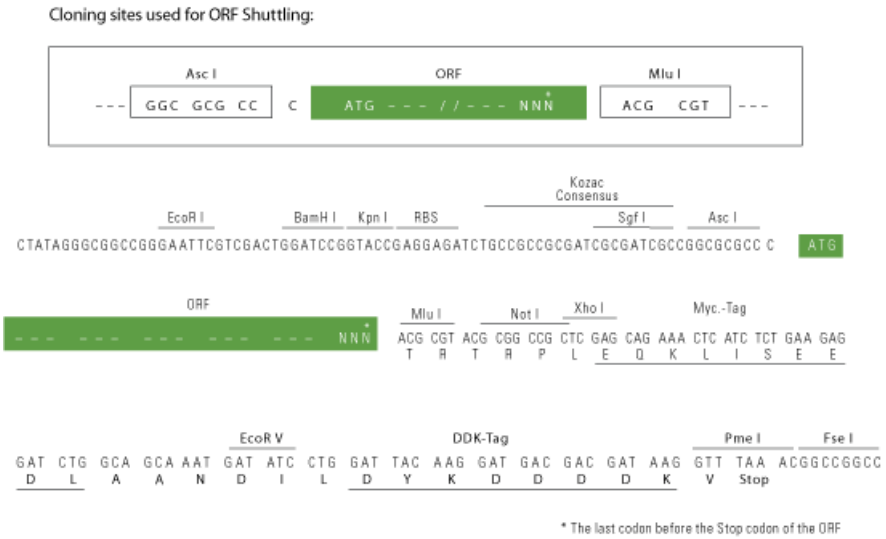
>RC240133 representing NM_001287246
Red=Cloning site Green=Tags(s)

MAAVPQNNLQEQLERHSARTLNNKLSLSKPKFSGFTFKKKTSSDNNVSVTNVSVAKTPVLRNKDVNVTED
FSFSEPLPNTTNQQRVKDFFKNAPAGQETQRGGSKSLLPDFLQTPKEVVCTTQNTPTVKKSRDTALKKLE
FSSSPDSLSTINDWDDMDDFDTSETSKSFVTPPQSHFVRVSTAQKSKKGKRNFFKAQLYTTNTVKTDLPP
PSSESEQIDLTEEQKDDSEWLSSDVICIDDGPIAEVHINEDAQESDSLKTHLEDERDNSEKKKNLEEAEL
HSTEKVPCIEFDDDDYDTDFVPPSPEEIISASSSSSKCLSTLKDLDTSDRKEDVLSTSKDLLSKPEKMSM
QELNPETSTDCDARQISLQQQLIHVMEHICKLIDTIPDDKLKLLDCGNELLQQRNIRRKLLTEVDFNKSD
ASLLGSLWRYRPDSLDGPMEGDSCPTGNSMKELNFSHLPSNSVSPGDCLLTTTLGKTGFSATRKNLFERP
LFNTHLQKSFVSSNWAETPRLGKKNESSYFPGNVLTSTAVKDQNKHTASINDLERETQPSYDIDNFDIDD
FDDDDDWEDIMHNLAASKSSTAAYQPIKEGRPIKSVSERLSSAKTDCLPVSSTAQNINFSESIQNYTDKS
AQNLASRNLKHERFQSLSFPHTKEMMKIFHKKFGLHNFRTNQLEAINAALLGEDCFILMPTGGGKSLCYQ
LPACVSPGVTVVISPLRSLIVDQVQKLTSLDIPATYLTGDKTDSEATNIYLQLSKKDPIIKLLYVTPEKI
CASNRLISTLENLYERKLLARFVIDEAHCVSQWGHDFRQDYKRMNMLRQKFPSVPVMALTATANPRVQKD
ILTQLKILRPQVFSMSFNRHNLKYYVLPKKPKKVAFDCLEWIRKHHPYDSGIIYCLSRRECDTMADTLQR
DGLAALAYHAGLSDSARDEVQQKWINQDGCQVICATIAFGMGIDKPDVRFVIHASLPKSVEGYYQESGRA
GRDGEISHCLLFYTYHDVTRLKRLIMMEKDGNHHTRETHFNNLYSMVHYCENITECRRIQLLAYFGENGF
NPDFCKKHPDVSCDNCCKTKDYKTRDVTDDVKSIVRFVQEHSSSQGMRNIKHVGPSGRFTMNMLVDIFLG
SKSAKIQSGIFGKGSAYSRHNAERLFKKLILDKILDEDLYINANDQAIAYVMLGNKAQTVLNGNLKVDFM
ETENSSSVKKQKALVAKVSQREEMVKKCLGELTEVCKSLGKVFGVHYFNIFNTVTLKKLAESLSSDPEVL
LQIDGVTEDKLEKYGAEVISVLQKYSEWTSPAEDSSPGISLSSSRGPGRSAAEELDEEIPVSSHYFASKT
RNERKRKKMPASQRSKRRKTASSGSKAKGGSATCRKISSKTKSSSIIGSSSASHTSQATSGANSKLGIMA
PPKPINRPFLKPSYAFS

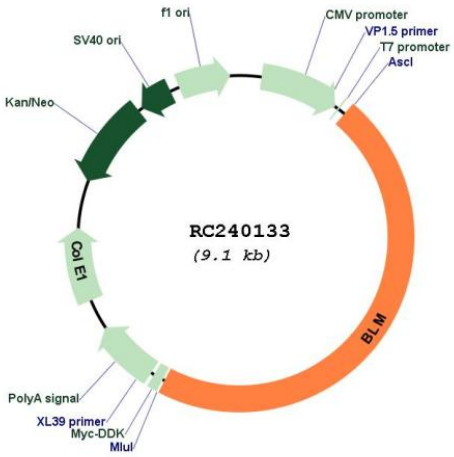
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: AscI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001287246
ORF Size:	4251 bp
OTI Disclaimer:	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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001287246.2
RefSeq Size:	4665 bp
RefSeq ORF:	4254 bp
Locus ID:	641
UniProt ID:	P54132
Cytogenetics:	15q26.1
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Homologous recombination
MW:	159.5 kDa
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]