

## Product datasheet for **MC229119**

### **Rbbp8 (NM\_001252495) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Rbbp8 (NM_001252495) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rbbp8
Synonyms:	9930104E21Rik; CtIP; RBBP-8; RIM; SAE2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC229119 representing NM\_001252495  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCATTTTCAGGAAGCGGCTGTGGAAGCCCTAATTCTGCGGATGCATCCAATGACTTCAAGGAAGCTCT  
 GGACAAAACATAAAAGAGTATCATGATAAGGAAGTCAAGGTTTACAAGTCAAAGTAAACAAAACGAAAA  
 GGAACGAATTTAGATGCACAGAGACTAGAAGAATTTCTCACAAAAATCAACAGCTGAGAGACCGAGCAG  
 AAAGTCCCTCAGGAAACCATTAATAATTTAGAAGATAGGTTAAGAGCAGGATTGTGTGATCGCTGTGCAG  
 TAACTGAAGAGCATATGCACAAAAGCAGCAGGAGTTTAAAAATATCCGACAGCAGAACCCTTAAGCTTAT  
 TACAGAGCTGATGAATGAAAAGAATACTCTTCAAGAAGAAAACAAAAGCTTTCTGAACAACTGCAGCAG  
 AAAATGGAAAATGGTCAACAGGATCAAGTAGCTGAGCTTGCATGTGAGGAAAACATTATTCAGACTCAC  
 CAGTAACATCCTTTTCTTTCTGGCATTAAACCGCTACGAAAGAAGGAGAATCTCCATGTCGGATACGT  
 GGAACAAACACATACTAAGTTGGAGCGCTCTATGTACAAATGAATTAAGAAAAATATCTAAGGATTCA  
 GCTCCTGCACCAGTTAACTCTGAGGAACATGAAATTTCTGTAGCTGACACTTGTGATCAAAATCACTCAC  
 CACTGTCAAAAATATGTGAAACAAGCAGTTACCCCACTGATAAGACATCTTTAATTTAGACACTGTTGT  
 TGCTGAGACACTTGGACTTAATGGTCAAGAAGAATCTGAACCCCAAGGTCCCATGAGCCCTCTGGGAAGT  
 GAACTCTACCACTGTCTCAAAGAAGATCAAAAAACACCCTTTTATGGAATCTGCAAGAAGTAAGGAAG  
 ATAGCTTAAGATTTTCAGACTCTGCTTCAAAGACACCTCCTCAAGAAATTTACTACTCGGGCGTCACTCC  
 GGTATTTGGAGCTACCTCTACTGTGAAAGCTCATTGGGTTTGAATACAAGTTTCTCCCTCTCTCTTA  
 GACATTTGGGAAAAAACCTTCTGAAGACAGCTCCCTTTAGCAACATTGCTGTTTCTAGATCAGAGAAAAG  
 TTAGATCCAAATCTGAGGATAATGCCCTTTTACACAACATAGTCTTGGGTCAGAAGTGAAGGTCATTAG  
 CCAGTCATTTTCTAGTAAACAGATACTTACAAATAAAACTGTAAGTGACTCTGTAGATGAACAGTGCAGT  
 GCTGACCACATGAATACTACTGTTGCTGATAAATATTTGGTGCCTTTGAAATCCCTGGGAGGCAAGCAT  
 CCAAAAGGAAGAGGACTGAGGAGGAAAGTGAAGTGCAGTAAAGTGCCCCAGGCTGTTTTGATAAGGA  
 AAATGCCCTTCTTTCCCAATGGAGAATCAGTTCTCCAATGAATGGAGACCATGTGATGGATAAACCTCTG  
 GACCTGTCAGATCGGTTTGCAGCTACTCAGCGGCAAGAGAAGAACACGGAAACGAGACTTCAAAAAACA  
 AACTTAAGCAAGCCACTATTTACGAGGCTTTGAAGCCATTCCAAAGGGCTCCTCCTCAGGCCGTAAGC  
 CTTGAGTGGGACTGCATGCCAGCCAAAGACTCTTGGGAGACATACTGCTTACAGCCGAGGAGCCTCCAG  
 TCCTCTAGTAAATCTCTCCAGACCAAAAAACACCATTACAGATAAAAGAAGAAAATCCTGTCTTCAAAA  
 CACCTCCATGTTACAGGAAAGTTTGGAGACAGAGAATCTTTTGGTGATGTGAAGGGTACTGGTTCTCT  
 TGTGCCAACAAAAGTAAAGAGCAGAGCAGTCCATGGAGGATGTGAGCTTGCATCAGTTCTTCAGTTAAAC  
 CCCTGTAGAGTTGCTAAAACAAAGGCTCTGCCAAGCAACCAAGATACGTCTTTGAAAATATCCAGTGGA  
 GTGTAGACCCAGGAGCAGACCTTCTCAGTATAAAATGGATGTTACTGTAATAGATACAAAGGATAGCAG  
 TCACTCACGATTAGGAGGAGAAACAGTGGACATGGACTGTACATTGGTCAGTGAACCCGTGCTTTAAAA  
 ATGAAGAAACAAGAGCAAAAAGAAAGAAAGTCCAAATGGAGACATAAAAAATGAATGATAGCCTAGAAGATA  
 TGTTTGATCGGACAACACATGAAGAGTATGAGTCTGTTTGGCAGATAGCTTCTCCAGGTACCAGATGA  
 GGAAGAAGTGCCTGACACCACAAAAGAAAACAAACATACCTGCTGATAAACCAAGATGGAGTCAACAGAAA  
 GCATTTGTGGGGCCATATTTTAAAGATAAGGAGAGAGAAACTAGCATAACAGAAATTTTCTCATATTGAGG  
 TAGTTTCGGAAAAAAGAGAGAGAAGAAATGCTTGGGCACACATGTAAGAATGTGAAATTTATTATGC  
 AGATTTGCCAGCAGAAGAAAGAGAAAAGAAAGTTGGCTTCTGCTCAAGACACCGATTTTCGCTACATTCCA  
 CCCAACACACCAGAGAATTTCTGGGAAGTTGGTTTTCTTCTACTCAGACGTGTCTGAAAAGAGTTATA  
 TCAAGGAAGATCTCGATCTTAGTCTCGTCCAAAAGACGGCAGCCTTACAACCGGCTTTTTCTCCAAA  
 AGGCAAAGAACAGAGGACCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001252495

<b>Insert Size:</b>	2682 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001252495.1</a></u> , <u><a href="#">NP_001239424.1</a></u>
<b>RefSeq Size:</b>	3523 bp
<b>RefSeq ORF:</b>	2682 bp
<b>Locus ID:</b>	225182
<b>UniProt ID:</b>	<u><a href="#">Q80YR6</a></u>
<b>Cytogenetics:</b>	18 A1
<b>Gene Summary:</b>	<p>Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in DNA-end resection, the first step of double-strand break (DSB) repair through the homologous recombination (HR) pathway. HR is restricted to S and G2 phases of the cell cycle and preferentially repairs DSBs resulting from replication fork collapse. Key determinant of DSB repair pathway choice, as it commits cells to HR by preventing classical non-homologous end-joining (NHEJ). Functions downstream of the MRN complex and ATM, promotes ATR activation and its recruitment to DSBs in the S/G2 phase facilitating the generation of ssDNA. Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage. During immunoglobulin heavy chain class-switch recombination, promotes microhomology-mediated alternative end joining (A-NHEJ) and plays an essential role in chromosomal translocations.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same protein. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>