

Product datasheet for **RN207175**

Rbbp8 (NM_001134417) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rbbp8 (NM_001134417) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Rbbp8
Synonyms:	CtIP; RBBP-8; RGD1308872; RIM; SAE2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN207175 representing NM_001134417
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCATTT**CAGGAAGCAGCTGTGGAAGCC**TAATTCCACAGATATATCCAGTGACTTCAAGGAGCTCT
 GGACAAA**ACTAAAAGAAT**ATCATGATAAGGAAGTACAAGTTTACAAATCAAAGTAACCAA**ACTGAAAA**
 GGAAAGAATTTAGATGCACAGAGACTAGAA**GAATTCTT**CACAAAAATCAACAGCTGAGAGAC**CAGCAA**
 AAAGTTCTT**CAGGAAACCATTAAAATTT**AGAAGATAGGTTAAGAGCAGGACTGTGTGATCGCTGTGCAG
 TAACTGAAGAGC**ATATGCACAAAAAGCAGCAGGAGTTT**GAAAACATCCGACAGCAGAACTTAGGCTTAT
 CACAGAGCTCATGAATGAAAAGAGCGCTCTT**CAGGAAGAAAACAAAAAGCTTT**CTGAGCACTGCAACAG
 AAAATGGAAAGTGGTCAACAGGATCAAGTAGCTGAGCTTGAATGTGAGGAAAACATTATTCAGACTCAC
 CGATAACTTCTTTCTTTCTGGCATTAA**CCCGCTACGAAGAAAGGAGAATCTCCATGTCGGATACGT**
 TGAACAAACGCACACTAAATTGGAGC**ACTCTGCATGTACAAGTGAATTAAGAAAGTTTTCCAAGGGTTCA**
 ACTCTGCACCAGTAACTCTGAGGAACATGAAATTTCTAGTAGCCGACACTTGTGATCAGAGT**CATTCTC**
 CACTGTCTAAAATATGTGGAACAAGCAGTTACCCCGCTGACAAGTTATCTTCTAACTTAGATGCTGTTGT
 TGCTGAGACGCTTGGACTTGATGGTCAAGAA**GAATCTGAACCCCAAGGTCTGTGAGCCCTCTTGAAAA**
 GAGCTCTACCACTGTCTCAAAGAAGATC**ACAAAAACAGCCTTTT**ATGGAATCTGCAATAAGGAACGAA**G**
 ATAACGTAAGGTTTT**CAGACTCTGCTTCAAAGGCCCTCCCGGAGAACTCACTACTCGGGGGT**CATCTCC
 CGTGTTTGGACCTACCTTACCGTGAA**ACTCATTGGGTTT**GAAAACAAGTTTCTCCCTTCACTCTTA
 GACAGTGGGAAAAAAACCTTCTGAGCAGAGCTCCCTTTAGCAGCATTCTGTTTCTAGATCAGAGAA**AG**
 TTAGATCCAAATCAGAGGATAATGCCCTTTT**CACACAACAAAGTCTGGGCTGAGGTAAGGTCACAG**
 CCAGTCATTTCTAGTAAGCAGATTCTTACAAGTAAAAACGTTAGTGACTCTGTGACGAGCAGG**GTGGT**
 GCTGATC**CATGAAAGATGCTGTTAGTGATAAAACCTGGTGCCTTT**GAAATCACTGGGAGGCAAAGCGT
 CCAAAGGAAGAGGACTGAGGAAGAGGGT**GAGCACGCAGTACACTGCCCGCAGACCTGTTTT**GATAAGGA
 AAATGCCCTTCTTTTCCAATGGAGAA**TCAGTTCCTGTGAATGGAGACCATGTGATGGATAAACCTCTG**
 GACCTGT**CAGATCGGTTTGCAGCTAATCAGCGTCAAGAGAAGAACCACGGGGATGAACTTGCAAACACA**
 AACTTAAGCAAGTGACTATTTATGAGGCTCTGAAGCCCGTTCCCAAGGGCTCCTCCTCAGGCCGCAAGGC
 CTTGAGTGGGGCCTGCACACTAGCCCAAGACTCTGCAGAGACATACTGCTTACAGCAGCGCACCCCTCCAG
 TGCTCTAGTAAATCTCTCCAGACCATAACACTCAATTACAGATAAAAGAAGAAAATCCTGTTTT**CAAAA**
 CACCTCCACGTTACAGGAAAGTTTGGAGACAGAGAATCTTTTTGGTGATGTGAAGGGTATTGGGTCTCT
 TGTGCCAATAAAAGTAAAAGGCAGATCAGCCATGGAGGATGTGAGCTTGCATCAGTTCTT**CAGTTAAAC**
 CCCTGCAGAGTTGCTAAGACAAAGTCTCTGCCAGCAACCACGATATGTCATTTGAAAATATCCAGTGGA
 GTGTAGATCCGGGAGCAGACCTTTCTCAATATAAAATGGATGTTACTGTGATAGATACAAAGGACAGCAG
 TCACTCAGACTGGGAGGAGAGACAGTGGACATGGACTGTACATTGGTCAGTGA**AACCATGCTTTAAAA**
 ATGAAGAAACAAGAACAAGAGAGAAAAGTCCAAATGGAGACATAAAAA**TGAATGATAGCTTGGAA**GATA
 TGTTTGATCGGACAACACATGAAGAATATGAATCCTGCTTGGCAGATAACTTCTCCAGGTACCAGATGA
 GGAAGAATTGTCTGATACCACAAAGAAACCTAACATACACGGTGATAAAACAAGATGGAATCAAGCAGAAA
 GCATTTGTGGAGCCATTTTTAAAGATAAGGAGAGAGAAACTAGCATAACAGAAATTTTCTCATATTGAGG
 TAGTTCGGAAAAAAGAAGAAAGAAGAAATTGCTTGGGCACACATGTAAAGAATGTGAAATTTATTACGC
 AGATTTGCCAGCAGAGAAGAAAGAGAAAAGATTGGCTTCTGCTCAAGACACCGATTTTCGCTACATTCCA
 ACCAACACACCAGAGAATTTCTGGGAAGTTGGTTTTCTTCTACTCAGACGTGTCTGAAAGGGGTATA
 TCAAGGAAGATCTCGATCCTTGTCTCGTCCCAAAGACGGCAGCCTTACAACGCAGTCTTTTCTCCAAA
 GGGCAAAGAACAGAGGAC**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001134417

Insert Size:	2682 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_001134417.1</u> , <u>NP_001127889.1</u>
RefSeq Size:	3135 bp
RefSeq ORF:	2682 bp
Locus ID:	291787
UniProt ID:	<u>B1WC58</u>
Cytogenetics:	18p13
Gene Summary:	<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 (By similarity). During immunoglobulin heavy chain class-switch recombination, promotes microhomology-mediated alternative end joining (A-NHEJ) and plays an essential role in chromosomal translocations (By similarity). [UniProtKB/Swiss-Prot Function]</p>