

Product datasheet for **MG209218**

Rec8 (NM_020002) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rec8 (NM_020002) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rec8
Synonyms:	mrec; Rec8L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209218 representing NM_020002
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTCTACTATCCTAACGTGCTTCAGCGCCACACAGGCTGCTTCGCCACCATCTGGCTGGCAGCAACCC
 GAGGCAGCCGTTTGGTGAAGCGTGAATACCTAAATGTGAATGTGGTAAAGACCTGCGAGGAAATCCTCAA
 TTATGTGCTGGTAAGAGTGCAACCTCCGGTGGCCGGGCTGCCCGCCCCCGCTTCTCCCTATCTCTCC
 GCCCAGCTTCAGATTGGTGTGATAAGGGTCTACTTTCAACAGTGCAGTACCTTGTGGAAGACATCCAGC
 ATATCCTGGAGCACCTACATCGTGCCAGCTGCGGATTGCATTGATATGGAGGAGGCTGACCTACCTAG
 CTTGCTTCTTCCCAACTGCCTGGCCATGATGGAGACGCTGGAAGATGCCCCAGAACCCTTTTTGGGAAG
 ATGTCTGTGGATCTAGACTTCCAGTCTTTTGATATTCCTCAGATTGCACACCTTTTAGAGGCTGCAA
 CCCCAGAAAAAAGCTCGTAAGGAGACCCTTCTGAAGCCACTCCAGACCCAGGAAGCCTGACAGGACCTT
 GGCCACCGTGCAGTCCCCTGAGGTCATCACCTTACAGGAGGCAGAGCCCATCCGCATGCTGCAGATTGAA
 GGAGAGCAGGATCTCCAGAGATCAGTCGAGGAGACTTAGAACTGCTGATCGCAGAGAAAGATGACGCCA
 TCTTGCTAGAGGAACGTAGAGAGGCAGGCTTCTCCGACAGCGGAGAGCTTCACTACCACTGGATGAATC
 CAGGGAAGAACCCTGGGCCCTAGAAGGTCTGGTTTGGTCTCGGCACTCTCACCTCCAGCTCCTGCGCAG
 GTGGAAGGGATACAAGAAGCACTACCAGGCCAGGTCTTCCCTCCTGAGGTACAGAAGATGACAGGCTGGG
 AGCCTGGGGCCCTACTACTGAGGTGACCCACCTCAGGAGCTGCGGCTGCCTGCCCCACCCAGTACAGA
 GAAGAGGCTCCGCTCTTTCAGAGGCCACTTCCCAGCCGACACCGCGCGGCCAGTATTATTCTGGGAC
 AAGGAGACCCAGATCTCTCGGGAGAAGTTGAGGAACAAGTGCAGACTGGGGCTCACTGCTGGGAGTATC
 CAGTGGCCAGCCTCCCAAGAGGATGCTCACAAGCCAGCGGAGCTTTCAGAACCCTCACTCTCTGG
 CTGGCTACCCCAAGAACTCCTAGGTTTATGGACACACTGTGCCAGGTCCCCAAAGAATGCTCAGACAA
 AGGCCACAGCTGGAGACTGAGGAGACAGTGGAGGAAGAGAGAGCAGCAGATGAGGAAGAGAGGAGAAAGA
 CTGAAGCTCTGAGCGAGATCGAGGTTCTGAGGGAGGCCAGGAGCCAGTGGTCCCCTCATGCTGTCTTC
 AGAGCTCTCCCTAGAAGCAGCAGAAGATGAAAAGTCTCGTACTAGCCTCATCCCCCAGAATGGTGGGCC
 TGGTCTGAGGAGGGGCAGCCGAGCCCCCTGCACTGCCCATGCTGCCTGAACTTCTGAAGTGCCCATGG
 AGATGCCCCCAAGCCTGAACTCTTTCAGAGGCTGTGCTCAGGGCAGTAGCACTGAACTGCAGGCCAA
 CAAGGAGCTGGACTTCAGCAGCCTGGTCCCCCTCTCAGCCCCGAAAGTTGGCTTCTCGGGTCTTCTAT
 CTGCTCTTGGTGTGTCCACACAGAAGATCCTTCTTGTGGAACAACAGAAGCCATATGGGCCCTCTGA
 TTCGCTCTGGACCAAATCCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209218 representing NM_020002
 Red=Cloning site Green=Tags(s)

MFYYPNVLQRHTGCFATIWLAAATRGSRLLVKREYLNVNNVKTC EEILNYVLVRVQPPVAGLPRPRFSLYLS
 AQLQIGVIRVYFQQCYLVEDIQHILEHLHRAQLRIRIDMEEADLPSLLLPNCLAMMETLEDAPEPFFGK
 MSVDPRLPSPFDIPQIRHLLLEAATPEKTRKETLPEATPDRKPDRTLATVQSPEVITLQEAEPIMLQIE
 GEQDLPEISRGDLELLIAEKDDAILLEERQRGRLLRRRASLPLDESREEPRALEGALVSALSPAPAQ
 VEGIQEALPGQVFPPEVQKMTGWEPGALLTEVTPPQELRLPAPPSTEKRLPSLQRPLPRRHRRLQLLQFD
 KETQISREKFEEQLQTGAHCWEYPVAQPPKRLTSPAELFRTPTL SGWLPPELLGLWTHCAQVPQMLRQ
 RPQLETEETVEEERAAD EERRKTEALSEIEVLREAQEPSGPLMLSSEL SLEAAEDEKSRTSLIPPEWWA
 WSEEGQPEPPALPMLPELPEVPMEMPPRPELSSEAVLRAVALKLQANKELDFSSLVPPLSPRKLASRVFY
 LLLVLSLTKILLVEQQPYGPLLIRPGPKFP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_020002

ORF Size: 1773 bp

OTI Disclaimer: 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.

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_020002.3](#), [NP_064386.2](#)

RefSeq Size: 2055 bp

RefSeq ORF: 1776 bp

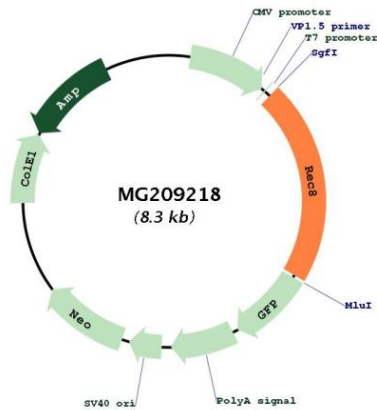
Locus ID: 56739

UniProt ID: [Q8C5S7](#)

Cytogenetics: 14 28.19 cM

Gene Summary: Required during meiosis for separation of sister chromatids and homologous chromosomes. Proteolytic cleavage of REC8 on chromosome arms by separin during anaphase I allows for homologous chromosome separation in meiosis I and cleavage of REC8 on centromeres during anaphase II allows for sister chromatid separation in meiosis II.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG209218