

Product datasheet for **RG201513**

RAD54B (NM_012415) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAD54B (NM_012415) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RAD54B
Synonyms:	RDH54
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201513 representing NM_012415
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGACGATCTGCAGCACCAAGTCAGTTGCAGGGGAATTCCTTCAAAAAACAAAAATTTATACCTCCAG
 GAAGAAGTAATCCAGGTCTGAATGAAGAGATTACAAAACGAATCCAGATATAAAATTTTGGGGTGT
 TGCAATTAATAACACCTTTCTCCCGTCACAAAATGATCTTAGAATATGCAGTTTAAATCTGCCTAGTGAA
 GAAAGTAGAGAAATCAATAACAGAGATAATTGCAGTGGAAAAATTGTTTTGAAGCACCTACTCGG
 CAACATTAGATCCACCTCATACAGTTTCATTGCGCTCCTAAAGAAGTAGCAGTGTCCAAGGAACAAGAAGA
 GAAATCTGATAGCCTAGTTAAATATTTTCAGTGTGTTTGGTGTAAAGCCTTCAAAGAAAAACATAAAAAAG
 TGGGAAGGTGATGCTGTTCTTATTGTAAGGAAAGTCATTTATATTAAGAATTTGGAAGGCAAGACA
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 TGGAAAAGAAATAGAAGTCATGGGTGAATCTCTCCAGATGACTTCAGCAGTGGCAGGTGTTTTTCAGCTT
 GGAGGAGGAAGTACTGCTATCTCGCATTCTTTCAGGTTGCCAGGAAATGTTTCTTAACCTTTCAAAA
 GTGTTTGTAAACCAAGTTCAAAGGAAAAATAGACAGAATGATTTCCAAAATTTGCAAACCACGCCATGACCC
 ATATACGCCAAATTCCTCGTTATGCCACGACCAGATAAGAATCACCAAGTGGGTATTCAATAAGAAGTGT
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 AATGGGTTTAGGGAAGACATTGCAATGTATTCGCTCATCTGGACCCTGCAGTGTGAGGGACCCTATGGA
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 TTCAAAATGGCTAGGAAGTGAAGGATCAAGATATTTACTGTTGATCAGGACCACAAAGTTGAAGAAAT
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 CTACAGCCCTCATTAGCCTTTCTGTGAGAAAAGAATAATTCTAACTGGTACTCCAATTCAGAATGATCT
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 AAGTTCAGATTGTGTTACTCATGATCTGCTTACTGTGAGTGTACAGGAGAAGAAGTTTACACAGGTGAT
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 AACCTCTTCTATGTCCAGCTGAAGCAATGGAACATTTTTCTGGAGATCATTTAAATCTTACAGATCC
 TTTTCTTGAAGAATAACAGAAAATGTGCATTCATTTTTTCAAGATATAACCACTCAAGCTACTGGCACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - **GTTTAA**

Protein Sequence: >RG201513 representing NM_012415
 Red=Cloning site Green=Tags(s)

MRRSAAPSQLQGNSFKKPKFIPPGRSNPGLNEEITKLNPDIKLFEGVAINNTFLPSQNDLRICSLNLPSE
 ESTREINNRDNC SGKYCFEAPTLATLDPHTVHSAPKEVAVSKEQEESDSL VKYF SVVWCKP SKKKHKK
 WEGDAVLIVKGSFILKNLEKDIGRIGYKFKLEKIEEGQTLMICGKEIEVMGVISPDDFSSGRCFQL
 GGGSTAISSHSSQVARKCF SNPFKSVCKPSSKENRQND FQNC KPRHDPYTPNSL VMPRPDKNHQWVFNKNC
 FPLVDVVIDPYLYVHLRPHQKEGII FL YECVMGMRMNGRCGAILADEMGLGKTLQCI SLIWTLCQCGPYG
 GKPVIKKTLIVTPGSLVNNWKEFQKWLGSERIKIFTVDQDHKVEEFIKSIFYSVLIISYEMLLRSLDQI
 KNIKFDLLICDEGHRKNSAIKTTTALISL SCEKRIILGTPIQNDLQEFFALIDFVNPGLGSLSSYRK
 IYEEPIILSREPSASEEEKELGERRAAELTCLTGLFILRRTQEIINKYLPPKIENVVFCRPGALQIELYR
 KLLNSQVVRFC LQGLLENSPHLICIGALKKLCNHPCLLFNSIKEKECSSTCDKNEEKSLYKGLLSVFPAD
 YNPLLFTEKESGKLQVL SKLLAVIHEL RPTEKVVLSNYTQTLNILQEVCKRHGYAYTRLDGQTPISQRQ
 QIVDGFNSQHSSFFIFLLSSKAGGVGLNLIGGSHLILYDIDWNPATDIQAMSRVWRDQKYPVHIYRLLT
 TGTIEEKIYQRQISKQGLCGAVVDLTKTSEHIQFSVEELKNLFTLHESSDCVTHDLLDCECTGEEVHTGD
 SLEKFI VSRDCQLGPHHQKSNL KPLSMSQLKQWKHFSGDHLNLTDPFLERITENVSFIFQNI TTQATGT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

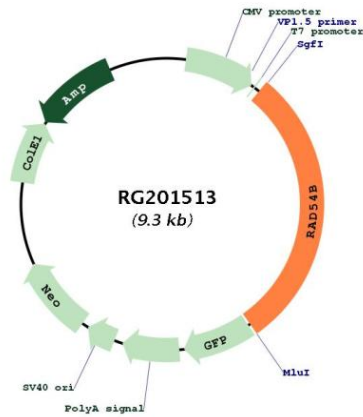
Cloning Scheme:



ACCN:	NM_012415
ORF Size:	2730 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:	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:	<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_012415.3</u> , <u>NP_036547.1</u>
RefSeq Size:	3074 bp
RefSeq ORF:	2733 bp
Locus ID:	25788
UniProt ID:	<u>Q9Y620</u>
Cytogenetics:	8q22.1
Domains:	SNF2_N, DEAD, helicase_C
Protein Families:	Druggable Genome
Protein Pathways:	Homologous recombination

Gene Summary:

The protein encoded by this gene belongs to the DEAD-like helicase superfamily. It shares similarity with *Saccharomyces cerevisiae* RAD54 and RDH54, both of which are involved in homologous recombination and repair of DNA. This protein binds to double-stranded DNA, and displays ATPase activity in the presence of DNA. This gene is highly expressed in testis and spleen, which suggests active roles in meiotic and mitotic recombination. Homozygous mutations of this gene were observed in primary lymphoma and colon cancer. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RG201513