

Product datasheet for **RG206457**

Rad51L1 (RAD51B) (NM_133509) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rad51L1 (RAD51B) (NM_133509) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rad51L1
Synonyms:	R51H2; RAD51L1; REC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206457 representing NM_133509 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGTAGCAAGAACTAAAACGAGTGGGTTTATCACAAGAGCTGTGTGACCGTCTGAGTAGACATCAGA
TCCTTACCTGTCAGGACTTTTTATGTCTTTCCCACTGGAGCTTATGAAGGTGACTGGTCTGAGTTATCG
AGGTGTCCATGAACCTTATGTATGGTCAGCAGGGCCTGTGCCCAAAGATGCAAACGGCTTATGGGATA
AAAGCACAAAGGTCTGCTGATTTCTCACCAGCATTCTTATCTACTACCCTTTCTGCTTTGGACGAAGCCC
TGCATGGTGGTGTGGCTTGTGGATCCCTCACAGAGATTACAGGTCCACCAGGTTGTGAAAACTCAGTT
TTGTATAATGATGAGCATTGGCTACATTACCCACCAACATGGGAGGATTAGAAGGAGCTGGGTGATC
ATTGACACAGAGTCTGCATTTAGTGCTGAAAGACTGGTTGAAATAGCAGAATCCCGTTTTCCAGATATT
TTAACTGAAGAAAAGTTACTTTTGACAAGTAGTAAAGTTATCTTTATCGGGAACCTCACCTGTGATGA
AGTTCTACAAAGGATTGAATCTTTGGAAGAAGAAATATCTCAAAGGAATTAACCTTGTGATTCTTGAC
TCTGTTGCTTCTGTGGTCAGAAAGGAGTTTGTGACAACTTCAAGGCAATCTCAAAGAAAGAAACAAGT
TCTTGGCAAGAGAGGCATCCCTCCTTGAAGTATTTGGCTGAGGAGTTTTCAATCCCAGTTATCTTGACGAA
TCAGATTACAACCATCTGAGTGGAGCCCTGGCTTCTCAGGCAGACCTGGTGTCTCCAGCTGATGATTTG
TCCCTGTCTGAAGCAGCTTCTGGATCCAGCTGTGTGATAGCCCACTAGGAAATACCTGGAGTCAAGTGT
TGAATACCCGGCTGATCCTCCAGTACCTTGATTGAGAGAGAAGACAGATTCTTATTGCCAAGTCCCTCT
GGCTCCCTTACCTCATTGTCTACACCATCAAGGAGGAAGGCCTGGTCTTCAAGAGACAACATTTTGC
TCTGTACCCAAAGCTGAACTGAACTGGGCTCCAGAAATCCTCCACCTCAGCCTCCTGAGCAGCTAGGAC
TACAGATGTGCCACCATACCCAGCTAATTTTT

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206457 representing NM_133509
 Red=Cloning site Green=Tags(s)

MGSKKLRVGLSQELCDRLSRHQILTCQDFLCLSPLELMKVTGLSYRGVHELLCMVSRACAPKMQTAYGI
 KAQRSADFSPAFLSTTL SALDEALHGGVACGSLTEITGPPGCGKTQFCIMMSILATLPTNMGGLEGAVVY
 IDTESAFSAERLVEIAESRFPYFNTEEKLLL TSSKVHLYRELTCDEVLQRIESLEEEIISKGIKLVILD
 SVASVVRKEFDAQLQGNLKERNKFLAREASSLKYLAEEFSIPVILTNQITTHLSGALASQADLVSPADDL
 SLSEGTSGSSCVIAALGNTWHSVNTRLILQYLDSERRQILIAKSPLAPFTSFVYTIKEEGLVLQETTFC
 SVTQAELNWAPEILPPQPPEQLGLQMCHHTQLIF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_133509

ORF Size: 1152 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_133509.4](#)

RefSeq Size: 2513 bp

RefSeq ORF: 1155 bp

Locus ID: 5890

UniProt ID: [O15315](#)

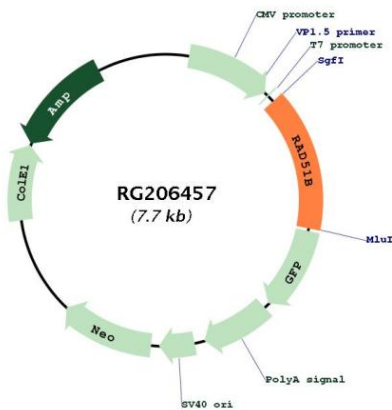
Cytogenetics: 14q24.1

Protein Families: Druggable Genome

Protein Pathways: Homologous recombination

Gene Summary: The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family members are evolutionarily conserved proteins essential for DNA repair by homologous recombination. This protein has been shown to form a stable heterodimer with the family member RAD51C, which further interacts with the other family members, such as RAD51, XRCC2, and XRCC3. Overexpression of this gene was found to cause cell cycle G1 delay and cell apoptosis, which suggested a role of this protein in sensing DNA damage. Rearrangements between this locus and high mobility group AT-hook 2 (HMG2, GeneID 8091) have been observed in uterine leiomyomata. [provided by RefSeq, Mar 2016]

Product images:



Circular map for RG206457