

## Product datasheet for **RG220046**

### **RAD54 (RAD54L) (NM\_003579) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RAD54 (RAD54L) (NM_003579) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RAD54L
Synonyms:	hHR54; HR54; hRAD54; RAD54A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220046 representing NM\_003579  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAGGAGCTTGGCTCCCAGCCAGCTGGCCAAGAGAAAACCTGAAGGCAGGTCTGTGATGATGAAG  
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 GAAGCATTTATTGAAGCATTGTCAAAGCCTTTCAAAGTCCCCATTCCAAATTATCAAGGTCCTCTGG  
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 GGGATGCTGCCTCACTGCTATCACCTTCGCTTCCACCAGCGTTCTCATGAGGAGCAGCGGGCCCTCCG  
 C

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG220046 representing NM\_003579  
 Red=Cloning site Green=Tags(s)

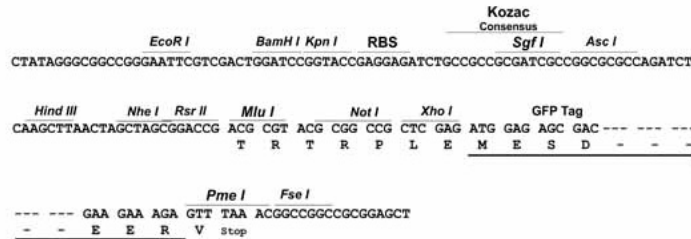
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TRTRPLE - GFP Tag - V

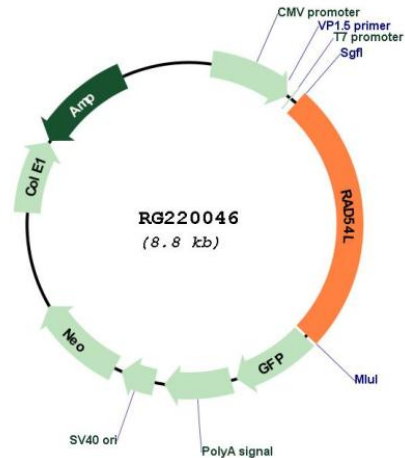
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_003579

ORF Size: 2241 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\\_003579.2](#), [NP\\_003570.1](#)

RefSeq Size: 3107 bp

RefSeq ORF: 2244 bp

Locus ID: 8438

<b>UniProt ID:</b>	<u>Q92698</u>
<b>Cytogenetics:</b>	1p34.1
<b>Domains:</b>	SNF2_N, DEAD, helicase_C
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Homologous recombination
<b>Gene Summary:</b>	<p>The protein encoded by this gene belongs to the DEAD-like helicase superfamily, and shares similarity with <i>Saccharomyces cerevisiae</i> Rad54, a protein known to be involved in the homologous recombination and repair of DNA. This protein has been shown to play a role in homologous recombination related repair of DNA double-strand breaks. The binding of this protein to double-strand DNA induces a DNA topological change, which is thought to facilitate homologous DNA pairing, and stimulate DNA recombination. Alternative splicing results in multiple transcript variants encoding the same protein.[provided by RefSeq, Dec 2008]</p>