

## Product datasheet for SC310514

### Rad51L1 (RAD51B) (NM\_002877) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rad51L1 (RAD51B) (NM_002877) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAD51B
Synonyms:	R51H2; RAD51L1; REC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC310514 representing NM_002877. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGTAGCAAGAACTAAAACGAGTGGGTTTATCACAAGAGCTGTGTGACCGTCTGAGTAGACATCAG
ATCCTTACCTGTCAGGACTTTTTATGTCTTTCCCACTGGAGCTTATGAAGGTGACTGGTCTGAGTTAT
CGAGGTGTCCATGAACCTCTATGTATGGTCAGCAGGGCCTGTGCCCAAAGATGCAAACGGCTTATGGG
ATAAAAGCACAAAGGTCTGCTGATTTCTCACCAGCATTCTTACTACTACCCTTTCTGCTTTGGACGAA
GCCCTGCATGGTGGTGTGGCTTGTGGATCCCTCACAGAGATTACAGGTCCACCAGGTTGTGGAAAACT
CAGTTTTGTATAATGATGAGCATTGGCTACATTACCCACCAACATGGGAGGATTAGAAGGAGCTGTG
GTGACATTGACACAGAGTCTGCATTTAGTGCTGAAAGACTGGTTGAAATAGCAGAATCCCGTTTTCCC
AGATATTTTAACTGAAGAAAAGTTACTTTTGACAAGTAGTAAAGTTCACTTTATCGGAACTCACC
TGTGATGAAGTTCTACAAGGATTGAATCTTTGGAAGAAGAAATTATCTCAAAGGAATTAACCTTGTG
ATTCTTGACTCTGTTGCTTCTGTGGTCAGAAAGGAGTTTGTGATGCACAACCTCAAGGCAATCTCAAAGAA
AGAAACAAGTTCTTGGCAAGAGAGGCATCCTCCTTGAAGTATTTGGCTGAGGAGTTTTCAATCCCAGTT
ATCTTGACGAATCAGATTACAACCCATCTGAGTGGAGCCCTGGCTTCTCAGGCAGACCTGGTGTCTCCA
GCTGATGATTTGCCCTGTCTGAAGGCACTTCTGGATCCAGCTGTGTGATAGCCGCACTAGGAAATACC
TGGAGTCACAGTGTGAATACCCGGCTGATCCTCCAGTACCTTGATTGATTGAGAGAGAAGACAGATTCTTATT
GCCAAGTCCCCTCTGGCTCCCTCACCTCATTTGTCTACACCATCAAGGGAAGGCCTGGTTCTTCAA
GCCTATGGAAATTCCTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: SgfI-MluI

Plasmid Map: □



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<b>ACCN:</b>	NM_002877
<b>Insert Size:</b>	1053 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002877.5</a>
<b>RefSeq Size:</b>	1888 bp
<b>RefSeq ORF:</b>	1053 bp
<b>Locus ID:</b>	5890
<b>UniProt ID:</b>	<a href="#">O15315</a>
<b>Cytogenetics:</b>	14q24.1
<b>Domains:</b>	AAA
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Homologous recombination
<b>MW:</b>	38.3 kDa

**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 (HMGA2, GeneID 8091) have been observed in uterine leiomyomata. [provided by RefSeq, Mar 2016]

Transcript Variant: This variant (1) has an alternate exon at the 3' end compared to the longest variant (3). The resulting isoform (1) has a distinct C-terminus, as compared to isoform 3.