

## **Product datasheet for SC317672**

## RAD52 (NM\_134424) Human Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: RAD52 (NM\_134424) Human Untagged Clone

Tag:Tag FreeSymbol:RAD52

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC317672 representing NM\_134424.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTCTGGGACTGAGGAAGCAATTCTTGGAGGACGTGACAGCCATCCTGCTGCTGCGGCGGCTCAGTG TTATGCTTTGGACAGTGCCAGTACACAGCAGAAGAGTACCAGGCCATCCAGAAGGCCCTGAGGCAGAGG CTGGGCCCAGAATACATAAGTAGCCGCATGGCTGGCGGAGGCCAGAAGGTGTGCTACATTGAGGGTCAT CGGGTAATTAATCTGGCCAATGAGATGTTTGGTTACAATGGCTGGGCACACTCCATCACGCAGCAGAAT GTGGATTTTGTTGACCTCAACAATGGCAAGTTCTACGTGGGAGTCTGTGCATTTGTGAGGGTCCAGCTG AAGGATGGTTCATATCATGAAGATGTTGGTTATGGTGTGAGGGCCCTCAAGTCCAAGGCTTTATCT TTGGAGAAGGCAAGGAAGGAGGCGGTGACAGACGGGCTGAAGCGAGCCCTCAGGAGTTTTGGGAATGCA CTTGGAAACTGTATTCTGGACAAAGACTACCTGAGATCACTAAATAAGCTTCCACGCCAGTTGCCTCTT GAAGTGGATTTAACTAAAGCGAAGAGACAAGATCTTGAACCGTCTGTGGAGGAGGCAAGATACAACAGC TGCCGACCGAACATGGCCCTGGGACACCCACAGCTGCAGCAGGTGACCTCCCCTTCCAGACCCAGCCAT GCTGTGATACCGGCGGACCAGGACTGCAGCTCCCGAAGCCTGAGCTCATCCGCCGTGGAGAGCGAGGCC ACGCACCAGCGGAAGCTCCGGCAGAAGCAGCTGCAGCAGCAGTTCCGGGAGCGGATGGAGAAGCAGCAG GTTCGAGTCTCCACGCCGTCAGCTGAGAAGAGTGAGGCAGCGCCTCCGGCCCCTCCTGTGACGCACAGC ACTCCTGTAACTGTCTCAGAACCACTCCTGGAGAAAGACTTCCTTGCAGGAGTGACTCAAGAATTAATC AAGACTCTTGAAGACAACTCTGAAAAGTGGGCTGTGACTCCCGATGCAGGGGATGGTGTGGTCAAGCCC TCGTCTAGAGCAGACCCAGCCCAGACCTCTGACACATTAGCCTTGAACAACCAGATGGTGACCCAGAAC AGGACTCCACACAGCGTTTGCCACCAGAAACCACAAGCAAAATCTGGATCTTGGGACCTCCAAACTTAT AGCGCTGACCAACGCACAACAGGAAACTGGGAATCTCATAGGAAGAGCCAGGACATGAAGAAAAGGAAA **TATGATCCATCTTAA** 

**ACGCGTACGCGGCCGCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

**Restriction Sites:** Sgfl-Mlul



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**ACCN:** NM\_134424

**Insert Size:** 1257 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 <a href="mailto:customercom">customercom</a> 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 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.

**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: <u>NM 134424.3</u>

 RefSeq Size:
 3051 bp

 RefSeq ORF:
 1257 bp

 Locus ID:
 5893

 UniProt ID:
 P43351

 Cytogenetics:
 12p13.33

**Protein Families:** Druggable Genome

**Protein Pathways:** Homologous recombination

MW: 46.2 kDa



## **Gene Summary:**

The protein encoded by this gene shares similarity with Saccharomyces cerevisiae Rad52, a protein important for DNA double-strand break repair and homologous recombination. This gene product was shown to bind single-stranded DNA ends, and mediate the DNA-DNA interaction necessary for the annealing of complementary DNA strands. It was also found to interact with DNA recombination protein RAD51, which suggested its role in RAD51 related DNA recombination and repair. A pseudogene of this gene is present on chromosome 2. Alternative splicing results in multiple transcript variants. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Jul 2014]

Transcript Variant: This variant (1) encodes the longest isoform (a, also known as alpha). Variants 1 and 2 encode the same isoform. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.