

Product datasheet for RC228272L3

OriGene Technologies, Inc.

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RAD51 (NM_001164269) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: RAD51 (NM_001164269) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: RAD51

Synonyms: BRCC5; FANCR; HRAD51; HsRad51; HsT16930; MRMV2; RAD51A; RECA

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC228272).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_001164269

ORF Size: 1020 bp





RAD51 (NM_001164269) Human Tagged Lenti ORF Clone - RC228272L3

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: <u>NM 001164269.1</u>

 RefSeq ORF:
 1023 bp

 Locus ID:
 5888

 UniProt ID:
 Q06609

 Cytogenetics:
 15q15.1

Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

Protein Pathways: Homologous recombination, Pancreatic cancer, Pathways in cancer

MW: 36.6 kDa

Gene Summary: The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family

members are highly similar to bacterial RecA and Saccharomyces cerevisiae Rad51, and are known to be involved in the homologous recombination and repair of DNA. This protein can interact with the ssDNA-binding protein RPA and RAD52, and it is thought to play roles in homologous pairing and strand transfer of DNA. This protein is also found to interact with BRCA1 and BRCA2, which may be important for the cellular response to DNA damage. BRCA2 is shown to regulate both the intracellular localization and DNA-binding ability of this protein. Loss of these controls following BRCA2 inactivation may be a key event leading to genomic instability and tumorigenesis. Multiple transcript variants encoding different isoforms have

been found for this gene. [provided by RefSeq, Aug 2009]