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Product datasheet for RC211751L4V

RAD50 (NM_005732) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	RAD50 (NM_005732) Human Tagged ORF Clone Lentiviral Particle
Symbol:	RAD50
Synonyms:	hRad50; NBSLD; RAD502
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_005732
ORF Size:	3936 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC211751).
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.
RefSeq:	NM_005732.3
RefSeq Size:	6597 bp
RefSeq ORF:	3939 bp
Locus ID:	10111
UniProt ID:	Q92878
Cytogenetics:	5q31.1
Domains:	Rad50_zn_hook
Protein Families:	Druggable Genome

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Protein Pathways: Homologous recombination, Non-homologous end-joining

MW: 154.3 kDa

Gene Summary: The protein encoded by this gene is highly similar to Saccharomyces cerevisiae Rad50, a protein involved in DNA double-strand break repair. This protein forms a complex with MRE11 and NBS1. The protein complex binds to DNA and displays numerous enzymatic activities that are required for nonhomologous joining of DNA ends. This protein, cooperating with its partners, is important for DNA double-strand break repair, cell cycle checkpoint activation, telomere maintenance, and meiotic recombination. Knockout studies of the mouse homolog suggest this gene is essential for cell growth and viability. Mutations in this gene are the cause of Nijmegen breakage syndrome-like disorder.[provided by RefSeq, Apr 2010]