

Recombinant Human RAD51 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. RAD51-2789H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	RAD51 MS Standard C13 and N15-labeled recombinant protein (NP_002866) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family members are highly similar to bacterial RecA and <i>Saccharomyces cerevisiae</i> 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.
Molecular Mass	36.8 kDa
AA Sequence	MAMQMQLLEANADTSVEEESFGPQPISRLEQCGINANDVKKLEEAGFHTVEAVAYAP KKELINIKGISEAKADKILAEAAKLVPMGFTTATEFHQRRSEIIQITTGSKELDKLLQGGI

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

ETGSITEMFGEFRTGKTQICHTLAVTCQLPIDRGGGEGKAMYIDTEGTFRPERLLAVA
 ERYGLSGSDVLDNVAYARAFNTDHQTQLLYQASAMMVESRYALLIVDSATALYRTD
 YSGRGELSARQMHLARFLRMLLRLADEFGVAVVITNQVVAQVDGAAMFAADPKKPI
 GGNIHAHASTTRLYLRKGRGETRICKIYDSPCLPEAEAMFAINADGVGDAKDTRTRPL
 EQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [RAD51](#) [RAD51 recombinase \[Homo sapiens \(human\) \]](#)

Official Symbol [RAD51](#)

Synonyms RAD51; RAD51 homolog (S. cerevisiae); RAD51 (S. cerevisiae) homolog (E coli RecA homolog), RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae), RAD51A, RECA; DNA repair protein RAD51 homolog 1; BRCA1/BRCA2 containing complex; subunit 5; BRCC5; HsRad51; HsT16930; RAD51 homolog A; RecA-like protein; recombination protein A; RecA, E. coli, homolog of; RAD51 homolog (RecA homolog, E. coli); BRCA1/BRCA2-containing complex, subunit 5; RECA; MRMV2; HRAD51; RAD51A;

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Gene ID	5888
mRNA Refseq	NM_002875
Protein Refseq	NP_002866
MIM	179617
UniProt ID	Q06609
SDS-PAGE	