

Recombinant Human RAD51, His-tagged

Cat. No. RAD51-29580TH **Lot. No.** (See product label)

SPECIFICATION

| | |
|---------------------------|---|
| Product Overview | Recombinant full length human RAD51 with His tag. Estimated MW 37 kDa. |
| Species | Human |
| Source | E.coli |
| Description | <p>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.</p> |
| Conjugation | HIS |
| Tissue specificity | Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast. |
| Form | Liquid |

 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

| | |
|------------------------------|--|
| Purity | >95% by SDS-PAGE |
| Storage buffer | Preservative: None Constituents: 20% Glycerol, 20mM Tris HCl, 100mM Potassium chloride, 1mM DTT, 0.2mM EDTA, pH 8.0 |
| Storage | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles. |
| Sequence Similarities | Belongs to the RecA family. RAD51 subfamily. Contains 1 HhH domain. |
| Full Length | Full L. |

GENE INFORMATION

| | |
|------------------------|--|
| Gene Name | RAD51 RAD51 homolog (S. cerevisiae) [Homo sapiens] |
| 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; HsRad5 |
| Gene ID | 5888 |
| mRNA Refseq | NM_001164269 |
| Protein Refseq | NP_001157741 |
| MIM | 179617 |

 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

| | |
|----------------------------|---|
| Uniprot ID | Q06609 |
| Chromosome Location | 15q15.1 |
| Pathway | Assembly of the RAD51-ssDNA nucleoprotein complex, organism-specific biosystem; BARD1 signaling events, organism-specific biosystem; DNA Repair, organism-specific biosystem; Double-Strand Break Repair, organism-specific biosystem; Fanconi anemia pathway, organism-specific biosystem; |
| Function | ATP binding; ATP binding; DNA-dependent ATPase activity; damaged DNA binding; double-stranded DNA binding; |

 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