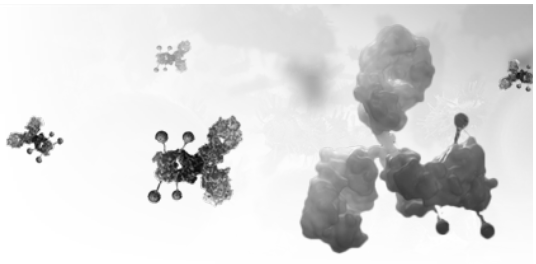

# Human RAD51 peptide (DAG-P1916)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

| | |
|---|---|
| **Antigen 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 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] |
| **Specificity** | Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast. |
| **Purity** | 70 - 90% by HPLC. |
| **Conjugate** | Unconjugated |
| **Sequence Similarities** | Belongs to the RecA family. RAD51 subfamily.Contains 1 HhH domain. |
| **Format** | Liquid |
| **Preservative** | None |
| **Storage** | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request. |

## GENE INFORMATION

| | |
|---|---|
| **Gene Name** | RAD51 RAD51 recombinase [ Homo sapiens (human) ] |

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

| | |
|---|---|
| **Official Symbol** | RAD51 |
| **Synonyms** | RAD51; RAD51 recombinase; RECA; BRCC5; MRMV2; HRAD51; RAD51A; HsRad51; HsT16930; DNA repair protein RAD51 homolog 1; RAD51 homolog A; RecA-like protein; recombination protein A; RecA, E. coli, homolog of; BRCA1/BRCA2-containing complex, subunit 5; |
| **Entrez Gene ID** | 5888 |
| **mRNA Refseq** | NM_001164269.1 |
| **Protein Refseq** | NP_001157741.1 |
| **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; DNA damage response, organism-specific biosystem; Double-Strand Break Repair, organism-specific biosystem; Fanconi anemia pathway, organism-specific biosystem; Fanconi anemia pathway, conserved biosystem; Homologous DNA pairing and strand exchange, organism-specific biosystem; Homologous Recombination Repair, organism-specif |
| **Function** | ATP binding; DNA polymerase binding; damaged DNA binding; double-stranded DNA binding; identical protein binding; protein C-terminus binding; protein binding; single-stranded DNA binding; single-stranded DNA-dependent ATPase activity; |

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221