

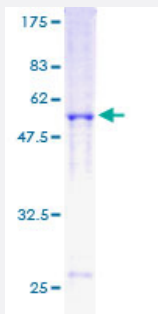
Full-Length

RAD51 (Human) Recombinant Protein (P01)

Catalog # H00005888-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human RAD51 full-length ORF (AAH01459, 1 a.a. - 242 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MAMQMQLLEANADTSVEEESFGPQPISRLEQCGINANDVKKLEEAGFHTVEAVAYAPKKELINIKGI
SEAKADKILAVAERYGLSGSDVLDNVAYARAFNTDHQTQLLYQASAMMVESRYALLIVDSATALYR
TDYSGRGELSARQMHLARFLRMLRLADEFGVAVVITNQVVAQVDGAAMFAADPKKPIGGNIIAHA
STTRL YLRKGRGETRICKYDSPCLPEAEAMFAINADGVGDAKD

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

52.36

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — RAD51

Entrez GeneID [5888](#)

GeneBank Accession# [BC001459](#)

Protein Accession# [AAH01459](#)

Gene Name RAD51

Gene Alias BRCC5, HRAD51, HsRad51, HsT16930, RAD51A, RECA

Gene Description RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae)

Omim ID [114480 179617](#)

Gene Ontology [Hyperlink](#)

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]

Other Designations BRCA1/BRCA2-containing complex, subunit 5|DNA repair protein RAD51 homolog 1|RAD51 homolog protein|RAD51, S.cerevisiae, homolog of, A|RecA, E. coli, homolog of|RecA-like protein|recombination protein A

Publication Reference

- [A novel interation of nucleolin with Rad51.](#)

De A, Donahue SL, Tabah A, Castro NE, Mraz N, Cruise JL, Campbell C.

Biochemical and Biophysical Research Communications 2006 Mar; 344(1):206.

Application: IP, Recombinant p53

Pathway

- [Homologous recombination](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)

Disease

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Ataxia telangiectasia](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Chromosome Aberrations](#)
- [Colorectal Neoplasms](#)
- [DNA Damage](#)
- [DNA Repair-Deficiency Disorders](#)
- [Esophageal Neoplasms](#)
- [Fanconi Anemia](#)
- [Genetic Predisposition to Disease](#)
- [Glioma](#)

- [Head and Neck Neoplasms](#)
- [Hematologic Diseases](#)
- [Hodgkin Disease](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Multiple Sclerosis](#)
- [Myelodysplastic Syndromes](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Occupational Diseases](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic Neoplasms](#)
- [Precancerous Conditions](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Radiodermatitis](#)
- [Recurrence](#)
- [Stomach Neoplasms](#)
- [Thyroid Neoplasms](#)

- [Urinary Bladder Neoplasms](#)
- [Waldenstrom Macroglobulinemia](#)
- [Werner syndrome](#)