Rad51 抗体

产品货号： mlR10145

英文名称： Rad51

中文名称： Rad51 抗体

别　　名： BRCA1/BRCA2 containing complex, subunit 5; BRCC 5; BRCC5; DNA repair protein RAD51 homolog 1; DNA repair protein rhp51; E coli RecA homolog; HGNC:9817; Homolog of E coli RecA; homolog of S cerevisiae RAD51; HRAD51; HsRad51; HsT16930; Rad 51; RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae); RAD51 homolog; RAD51 homolog S. cerevisiae; RAD51 S cerevisiae homolog; RAD51A; RECA; RecA homolog E. coli; RecA like protein; RecA, E. coli, homolog of; recombination protein A.

研究领域： 肿瘤　细胞生物　发育生物学　信号转导　细胞周期蛋白

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Dog, Pig, Cow, Horse, Rabbit, Sheep,

产品应用： IHC-P=1:400-800 IHC-F=1:400-800 ICC=1:100-500 IF=1:100-500 （石蜡切片需做抗原修复）
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

分 子 量： 37kDa

细胞定位： 细胞核 细胞浆

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原： KLH conjugated synthetic peptide derived from human Rad51:65-170/339

亚　　型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ˚C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20˚C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ˚C.

PubMed： PubMed

产品介绍： 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. Two alternatively spliced transcript variants of this gene, which encode distinct proteins, have been reported. Transcript variants utilizing alternative polyA signals exist.

Function:

Participates in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair. Binds to single and double stranded DNA and exhibits DNA-dependent ATPase activity. Underwinds duplex DNA and forms helical nucleoprotein filaments. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51C and XRCC3.

Subcellular Location:

Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion matrix. Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage. DNA damage induces an increase in nuclear levels.

Tissue Specificity:

Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.

Post-translational modifications:

Phosphorylated. Phosphorylation of Thr-309 by CHEK1 may enhance association with chromatin at sites of DNA damage and promote DNA repair by homologous recombination. Phosphorylation by ABL1 inhibits function.

DISEASE:

Defects in RAD51 are a cause of susceptibility to breast cancer (BC) [MIM:114480]. A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case.

Similarity:

Belongs to the RecA family. RAD51 subfamily.

Contains 1 HhH domain.

SWISS:

Q06609

Gene ID:

5888

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Rad51 蛋白对细胞调节有重要作用:作为辅助因子参与 DNA 修复同源重组,维持正常细胞周期；Rad51 蛋白在很多组织中都有不同的存在。在乳腺癌和消化系统等恶性肿瘤组织中表达较高，究其原因有报道称：这是 DNA 被损伤后细胞的一种反应，而这种反应不足以阻止癌变的发生。

产品图片