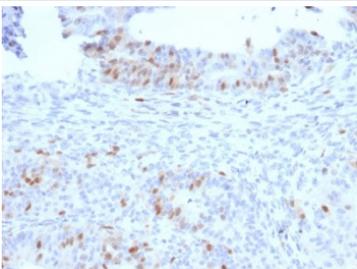


## RAD51 Antibody [clone RAD51/2701] (V7491)

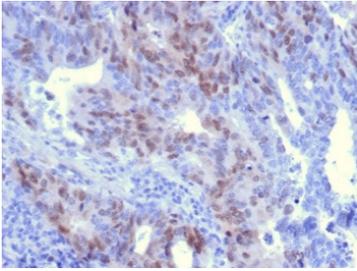
Catalog No.	Formulation	Size
V7491-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7491-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7491SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

### Bulk quote request

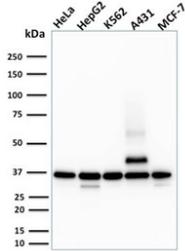
<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG2b, kappa
<b>Clone Name</b>	RAD51/2701
<b>Purity</b>	Protein G affinity chromatography
<b>UniProt</b>	Q06609
<b>Localization</b>	Nuclear
<b>Applications</b>	Flow Cytometry : 1-2ug/ml Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
<b>Limitations</b>	This RAD51 antibody is available for research use only.



IHC staining of FFPE human colon carcinoma with RAD51 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.

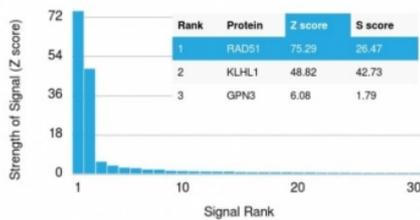


IHC staining of FFPE human colon carcinoma with RAD51 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



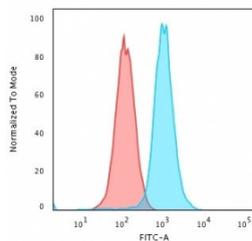
Western blot testing of human HeLa, HepG2, K562, A431 and MCF-7 cell lysate with RAD51 antibody. Expected molecular weight ~37 kDa.

Human Protein Microarray Specificity Validation



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using RAD51 antibody. These results demonstrate the foremost specificity of the RAD51/2701 mAb.

Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



Flow cytometry testing of human K562 cells with RAD51 antibody (clone RAD51/2701); Red=isotype control, Blue= RAD51 antibody.

## Description

RAD51 is one of the key factors of DNA repair by homologous recombination and has been shown to have anti-apoptotic activity in tumor cells. RAD51 protein interacts with a variety of tumor suppressor proteins including p53, BRCA1 and BRCA2. Elevated expression of RAD51 enhances radio-resistance of human tumor cells. Overexpression of RAD51 protein in tumor cells renders them resistant against cytotoxic drugs like Cisplatin. RAD51 interacts with BRCA1 and BRCA2 to influence subcellular localization and cellular response to DNA damage. BRCA2 inactivation may be a key event leading to genomic instability and tumorigenesis from deregulation of RAD51. High-level expression of RAD51 has been observed in a variety of human malignancies. RAD51 overexpression correlates with histological grading of the tumor in invasive ductal mammary carcinoma.

## Application Notes

Optimal dilution of the RAD51 antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

## **Immunogen**

A portion of amino acids 1-134 from the human protein was used as the immunogen for this RAD51 antibody.

## **Storage**

Store the RAD51 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).