

Mouse RAD51 Monoclonal Antibody | anti-RAD51 antibody

RAD51 (Prognostic and Response to Chemotherapy Marker)

CATALOG # AAA214807	HOST Mouse	REACTIVITY Human. Others not known.	APPLICATIONS Immunohistochemistry
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PRODUCT SYNONYMS

RAD51; Monoclonal Antibody; RAD51 (Prognostic and Response to Chemotherapy Marker); RCA1/BRCA2 containing complex; subunit 5; BRCC5; DNA repair protein RAD51; FANCR; HsT16930; MRMV2; RAD51 recombinase; RAD51A; RECA; RecA like protein; Recombination protein A; anti-RAD51 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human. Others not known.
Clonality	Monoclonal
Isotype	IgG2b, kappa
Clone Number	RAD51/2765
Specificity	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.
Purity/Purification	Purified Ab with BSA and Azide at 200ug/ml OR Purified Ab WITHOUT BSA and Azide at 1.0mg/ml
Form/Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Sequence Length	242
Applicable Applications for anti-RAD51 antibody	IHC (Immunohistochemistry)
Immunogen	Recombinant fragment of human RAD51 protein (around aa 1-134) (exact sequence is proprietary)
Positive Control	HeLa or MCF-7 Cells. Colon or Breast Carcinoma
Cellular Localization	Nuclear
Chromosome Location	15q15.1
Preparation and Storage	Antibody with azide - store at 2 to 8 degree C. Antibody without azide - store at -20 to -80 degree C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.



Application Data

Analysis of Protein Array containing more than 19,000 full-length human proteins using RAD51 Mouse Monoclonal Antibody (RAD51/2765). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



IHC (Immunohistochemistry)

Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with RAD51 Mouse Monoclonal Antibody (RAD51/2765).

ADDITIONAL INFORMATION

References	Henning W, Stuerzbecher H-W (2003) Homologous recombination and cell cycle checkpoints: Rad51 in tumour progression and therapy resistance. Toxicology 193: 91-109
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NCBI AND UNIPROT INFORMATION

NCBI GI #	256017143
NCBI GeneID	5888
NCBI Accession #	NP_001157741.1
NCBI GenBank Nucleotide #	NM_001164269.1
UniProt Accession #	Q06609; Q6FHX9; Q6ZNA8; Q9BV60; B0FXP0; B2R8T6
Molecular Weight	37kDa
NCBI Official Full Name	DNA repair protein RAD51 homolog 1 isoform 2
NCBI Official Synonym Full Names	RAD51 recombinase
NCBI Official Symbol	RAD51
NCBI Official Synonym Symbols	RECA; BRCC5; FANCR; MRMV2; HRAD51; RAD51A; HsRad51; HsT16930
NCBI Protein Information	DNA repair protein RAD51 homolog 1
UniProt Protein Name	DNA repair protein RAD51 homolog 1
UniProt Gene Name	RAD51
UniProt Synonym Gene Names	RAD51A; RECA; HsRAD51; hRAD51

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.