

Rabbit Rad51 Polyclonal Antibody | anti-Rad51 antibody

Anti-Rad51 Antibody

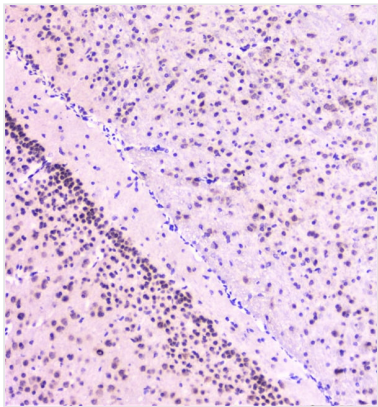
CATALOG # AAA124889	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

Rad51; Polyclonal Antibody; Anti-Rad51 Antibody; DNA repair protein RAD51 homolog 1; HsRAD51; hRAD51; RAD51 homolog A; RAD51; RAD51A; RECA; RAD51 recombinase; anti-Rad51 antibody

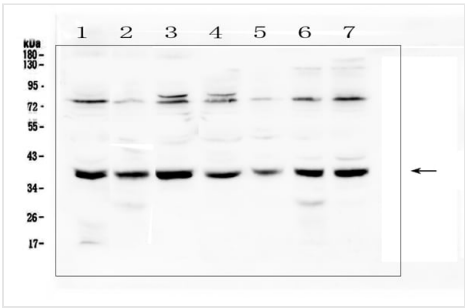
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized
Sequence Length	242
Applicable Applications for anti-Rad51 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to a sequence of human Rad51 (KKLEEAGFHTVEAVAYAPKKELINIKGISEAKADK).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection Systems	It is recommended to use an Enhanced Chemiluminescent Kit with anti-Rabbit IgG for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit for IHC-P.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of Rad51 using anti-Rad51 antibody. Rad51 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Rad51 antibody. Rad51 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Rad51 antibody. Rad51 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Rad51 Antibody overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Rad51 using anti-Rad51 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysate, Lane 2: human A431 whole cell lysate, Lane 3: human 293T whole cell lysate, Lane 4: human K562 whole cell lysate, Lane 5: human Jurkat whole cell lysate, Lane 6: human A549 whole cell lysate, Lane 7: human Caco-2 whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Rad51 antigen affinity purified polyclonal antibody at 0.5 ug/ml overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Rad51 at approximately 39KD. The expected band size for Rad51 is at 36KD.

ADDITIONAL INFORMATION

Related Product Information for anti-Rad51 antibody	Description: Rabbit IgG polyclonal antibody for Rad51 detection. Tested with WB, IHC-P in Human; Mouse; Rat. Background: DNA repair protein RAD51 homolog 1, also known as RAD51A, is a human gene. The Rad51 gene, HsRAD51, is a homolog of RecA of Escherichia coli and functions in recombination and DNA repair. BRCA1 and BRCA2 proteins form a complex with Rad51, and these genes are thought to participate in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair. RAD51 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.
References	1. Kato, M.; Yano, K.; Matsuo, F.; Saito, H.; Katagiri, T.; Kurumizaka, H.; Yoshimoto, M.; Kasumi, F.; Akiyama, F.; Sakamoto, G.; Nagawa, H.; Nakamura, Y.; Miki, Y.: Identification of Rad51 alteration in patients with bilateral breast cancer. J. Hum. Genet. 45: 133-137, 2000. 2. Daniel DC (2002). "Highlight: BRCA1 and BRCA2 proteins in breast cancer.". Microsc. Res. Tech. 59 (1): 68-83.

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	26,351 Da

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.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/rad51-antibody-immunohistochemistry-western-blot-elisa/124889>