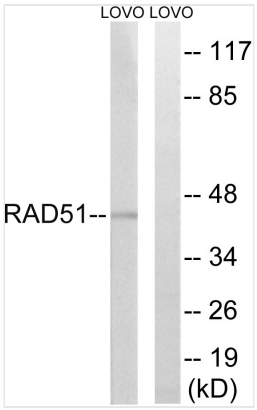
RAD51 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RAD51, Polyclonal Antibody
Full Product Name	RAD51 Antibody
Product Gene Name	anti-RAD51 antibody
Product Synonym Names	DNA repair protein RAD51 homolog 1; RAD51A; RECA
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Purified from rabbit antiserum by affinity-chromatography using immunogen.
Concentration	1 mg/ml (lot specific)
Specificity	RAD51 Antibody detects endogenous levels of total RAD51 protein.
Preparation and Storage	Stable at -20 degree C for at least 1 year.
Molecular Weight	36 kDa
OMIM	D13804 mRNA
3D Structure	ModBase 3D Structure for Q06609
Target Modification	Unmodified/Total
Immunogen	The antiserum was produced against synthesized peptide derived from human RAD51.
Immunogen Range	281-330
Applications Tested/Suitable for anti-RAD51 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-RAD51 antibody	WB: 1:500~1:1000 ELISA: 1:20000
Related Product Information for anti-RAD51 antibody	MBS9503982 is an antibody targeting RAD51. Also known as RAD51 Antibody. Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-RAD51 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-RAD51 antibody
Western blot analysis of lysates from LOVO cells, using RAD51 Antibody. The lane on the right is blocked with the synthesized peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RAD51. It may not necessarily be applicable to this product.

NCBI GI #	256017143
NCBI GeneID	5888
NCBI Accession #	NP_001157741.1
UniProt Primary Accession #	Q06609
UniProt Secondary Accession #	Q6FHX9; Q6ZNA8; Q9BV60; B0FXP0; B2R8T6
UniProt Related Accession #	Q06609
GenBank Nucleotide #	NM_001164269.1
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
UniProt Protein Name	DNA repair protein RAD51 homolog 1
UniProt Synonym Protein Names	RAD51 homolog A
Protein Family	DNA repair protein
UniProt Gene Name	RAD51
UniProt Synonym Gene Names	RAD51A; RECA; HsRAD51; hRAD51
NCBI Protein Information	DNA repair protein RAD51 homolog 1
NCBI Summary for RAD51	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, Aug 2009]

UniProt Comments for RAD51	Plays an important role in homologous strand exchange, a key step in DNA repair through homologous recombination (HR) (PubMed:28575658). Binds to single and double-stranded DNA and exhibits DNA-dependent ATPase activity. Catalyzes the recognition of homology and strand exchange between homologous DNA partners to form a joint molecule between a processed DNA break and the repair template. Binds to single-stranded DNA in an ATP-dependent manner to form nucleoprotein filaments which are essential for the homology search and strand exchange (PubMed:26681308). Part of a PALB2-scaffolded HR complex containing BRCA2 and RAD51C and which is thought to play a role in DNA repair by HR. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51C and XRCC3. Also involved in interstrand cross-link repair (PubMed:26253028).
Research Articles on RAD51	**1.** Mutations F86L & E258A affect the multimerization/BRCA2 binding region of RAD51.Both variants exhibit altered thermal stability,reduced DNA binding affinity,reduced ATPase activity compared to wild-type. F86L efficiently catalyzes DNA strand exchange reactions,whereas strand exchange activity of E258A is severely reduced.Mixtures of either variant with wild-type RAD51 exhibit strong defects in DNA strand exchange activity
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-antibody/rad51/9503982