

Datasheet for ABIN968313

**anti-RAD50 antibody (AA 672-786)****4** Images**5** Publications[Go to Product page](#)

## Overview

Quantity:	50 µg
Target:	RAD50
Binding Specificity:	AA 672-786
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This RAD50 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

## Product Details

Immunogen:	Human RAD50 aa. 672-786
Clone:	13-RAD50
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none"><li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>2. Please refer to us for technical protocols.</li><li>3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li><li>4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li></ol>
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

## Target Details

Target:	RAD50
Alternative Name:	Rad50 ( <a href="#">RAD50 Products</a> )
Background:	<p>DNA double-strand breaks (DSBs) are generated during intrinsic eukaryotic DNA recombination events such as assembly of antigen receptor genes, meiotic and mitotic recombination. DNA DSB repair proteins are also required to repair breaks induced by extrinsic factors such as ionizing radiation and mutagenic chemicals. Originally identified in <i>S. cerevisiae</i>, Rad50 is one of a group of genes, designated as the Rad52 epistasis group, whose products mediate DSB repair. Many of these genes, including Rad50, are conserved in humans and are thought to have a similar function to their <i>S. cerevisiae</i> counterparts. In yeast, a multiprotein complex of Rad50, MRE11, and XRS2 has been implicated in the nucleocytic processing of DSBs. In humans, Rad50 and MRE11 complex with up to three additional proteins (95 kDa, 200 kDa, and 350 kDa). The 95 kDa species is thought to be human XRS2, although a separate report has identified it as Nibrin, the product of the gene mutated in Nijmegen breakage syndrome. The Rad50-MRE11-p95 complex possess endonuclease and 3' to 5' exonuclease activity. Thus, human Rad50 functions in a multiprotein complex to mediate the repair of DSBs in the human genome. This antibody is routinely tested by western blot analysis.</p>
Molecular Weight:	154 kDa
Pathways:	<a href="#">DNA Damage Repair</a> , <a href="#">Protein targeting to Nucleus</a>

## Application Details

Comment:	Related Products: <a href="#">ABIN968537</a> , <a href="#">ABIN967389</a>
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

## Handling

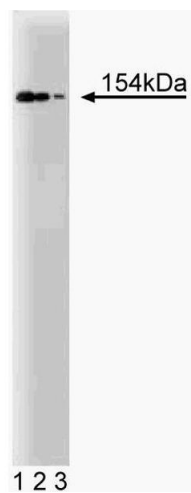
---

Storage Comment: Store undiluted at -20° C.

## Publications

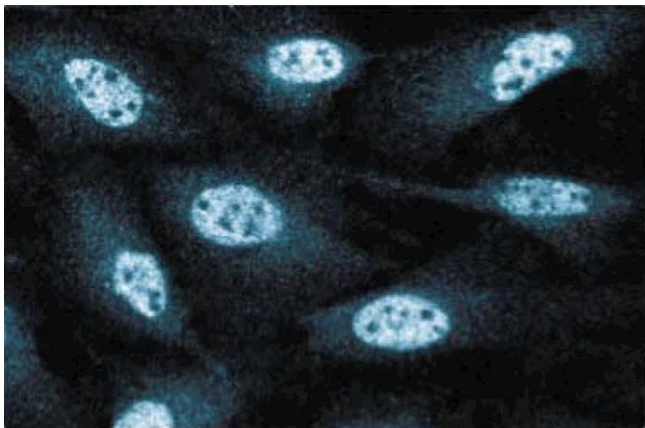
---

- Product cited in: Saitoh, Pizzi, Wang: "Perturbation of SUMOlation enzyme Ubc9 by distinct domain within nucleoporin RanBP2/Nup358." in: **The Journal of biological chemistry**, Vol. 277, Issue 7, pp. 4755-63, (2002) ([PubMed](#)).
- Huber, Yang, Sarkisian, Master, Deng, Chodosh: "Impaired DNA damage response in cells expressing an exon 11-deleted murine Brca1 variant that localizes to nuclear foci." in: **Molecular and cellular biology**, Vol. 21, Issue 12, pp. 4005-15, (2001) ([PubMed](#)).
- Ohta, Nicolas, Furuse, Nabetani, Ogawa, Shibata: "Mutations in the MRE11, RAD50, XRS2, and MRE2 genes alter chromatin configuration at meiotic DNA double-stranded break sites in premeiotic and meiotic cells." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 95, Issue 2, pp. 646-51, (1998) ([PubMed](#)).
- Trujillo, Yuan, Lee, Sung: "Nuclease activities in a complex of human recombination and DNA repair factors Rad50, Mre11, and p95." in: **The Journal of biological chemistry**, Vol. 273, Issue 34, pp. 21447-50, (1998) ([PubMed](#)).
- Dolganov, Maser, Novikov, Tosto, Chong, Bressan, Petrini: "Human Rad50 is physically associated with human Mre11: identification of a conserved multiprotein complex implicated in recombinational DNA repair." in: **Molecular and cellular biology**, Vol. 16, Issue 9, pp. 4832-41, (1996) ([PubMed](#)).



#### Western Blotting

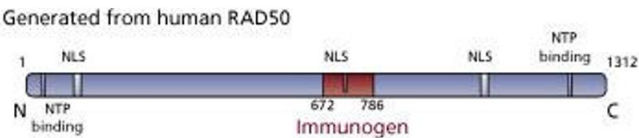
**Image 1.** Western blot analysis of RAD50 on a Jurkat cell lysate (Human T-cell leukemia, ATCC TIB-152). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human RAD50 antibody.



#### Immunofluorescence

**Image 2.** Immunofluorescence staining of human endothelial cells.

#### Image 3.



Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968313.