

#### DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Rad50 in Western blots.                                                                                                                                                                                                                                       |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Rad50<br>Leu518-Leu881<br>Accession # Q92878                                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Rad50 is a 150 kDa member of the Rad50 subfamily, SMC (structural maintenance of chromosomes) family of DNA-associated genes. It is ubiquitously expressed, and associates with MRE11 and NBS1 to form an MRN complex. This complex stabilizes ATM kinase, thus contributing to DNA repair, and also participates in the suppression of DNA rereplication in dividing cells. Human Rad50 is 1312 amino acids (aa) in length. It has an apparent ATP binding site (aa 36-43) plus a coiled-coil region (aa 228-598) followed by a "zinc-hook" domain (aa 635-734) that mediates homodimerization. There are multiple splice variants. An alternate start site exists at Met140, there is a single Lys substitution for aa 723-1312, and three Lys substitute for aa 555-1312. Over aa 518-881, human Rad50 is 96% aa identical to mouse Rad50.

#### PRODUCT SPECIFIC NOTICES

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