


Anti-Rad50 antibody ab3622

★★★★★ [2 Abreviews](#) [2 References](#) [1 Image](#)

Overview

Product name	Anti-Rad50 antibody
Description	Rabbit polyclonal to Rad50
Host species	Rabbit
Tested applications	Suitable for: IP
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Rabbit, Horse, Cow, Chimpanzee, Baboon, Rhesus monkey, Gorilla, Orangutan 
Immunogen	Synthetic peptide (Human) - which represented a portion of human Rad 50 encoded in part by exons 2 and 3.
Positive control	HeLa cell nuclear extract.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab3622 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use a concentration of 1 - 4 µg/ml.

Target

Function

Component of the MRN complex, which plays a central role in double-strand break (DSB) repair, DNA recombination, maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity, which are provided by MRE11A. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates, and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11A to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation.

Tissue specificity

Expressed at very low level in most tissues, except in testis where it is expressed at higher level. Expressed in fibroblasts.

Involvement in disease

Defects in RAD50 are the cause of Nijmegen breakage syndrome-like disorder (NBSLD) [MIM:613078]; also called NBS-like disorder or RAD50 deficiency. NBSLD is a disorder similar to Nijmegen breakage syndrome and characterized by chromosomal instability, radiation sensitivity, microcephaly, growth retardation, short stature and bird-like face. Immunodeficiency is absent.

Sequence similarities

Belongs to the SMC family. RAD50 subfamily.
Contains 1 zinc-hook domain.

Domain

The zinc-hook, which separates the large intramolecular coiled coil regions, contains 2 Cys residues that coordinate one molecule of zinc with the help of the 2 Cys residues of the zinc-hook of another RAD50 molecule, thereby forming a V-shaped homodimer. The two heads of the homodimer, which constitute the ATP-binding domain, interact with the MRE11A homodimer.

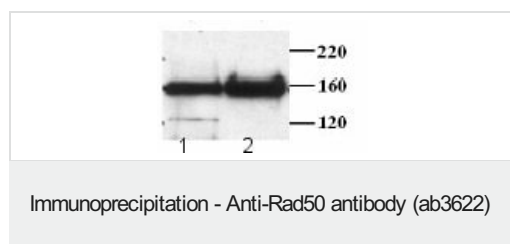
Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

Nucleus. Chromosome > telomere. Localizes to discrete nuclear foci after treatment with genotoxic agents.

Images



Lanes:

1. IP from 1mg extract with 1.25g Rabbit anti-Rad 50 (exon 2-3) (ab3622)
2. IP from 1mg extract with 1.25µg Rabbit anti-Rad 50 (exon 13-14) (**ab3623**)

Sample: Nuclear extract from Hela cells

for Western blot, affinity purified Rabbit anti-Rad 50 (ab3622) used
at 1:4000 dilution

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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