abcam

Product datasheet

Anti-Rad50 antibody [13B3/2C6] ab89

★★★★★ 6 Abreviews 54 References 5 图像

概述

产品名称	Anti-Rad50抗体[13B3/2C6]
描述	小鼠单克隆抗体[13B3/2C6] to Rad50
宿主	Mouse
经测试应用	**适用于:** Flow Cyt, IHC-P, ICC, WB
种属反应性	**与反应:** Human
免疫原	Recombinant fragment corresponding to Human Rad50 aa 1-450. Expressed in E.coli. Database link: **Q92878**
阳性对照	WB: HEK293 total cell lysate. ICC: HeLa cells. IHC-P: Human placenta tissue.
常规说明	This product was changed from ascites to tissue culture supernatant on 01/02/2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. Clone 2C6 recognizes Rad50, a 153kDa protein involved in DNA double strand break repair. Rad50 is associated with Mre11 and p95 (Nibrin) to form a multiprotein complex involved in the double strand break repair process. 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. 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

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.40 Constituent: 100% PBS
纯度	Affinity purified
纯化说明	Affinity purified by Protein G.

克隆	单克隆
克隆编号	13B3/2C6
骨髓瘤	NS1
同种型	IgG1
轻链类型	kappa

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab89于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Flow Cyt		Use 1µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		1/100 - 1/1000.
ICC		1/200.
WB	★★★★★ **(5)**	1/500 - 1/3000. Detects a band of approximately 150 kDa (predicted molecular weight: 146 kDa).

靶标

功能 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.

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

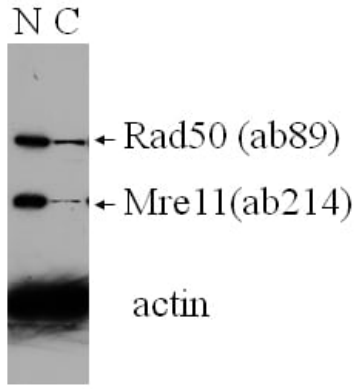
疾病相关 Defects in RAD50 are the cause of Nijmegen breakage syndrome-like disorder (NBSLD) [MIM:613078]; also called NBS-like disorder or RAD50 deficiency. NBSLD is a disorder similar to Nijmegen breakage syndrome and characterized by chromosomal instability, radiation sensitivity, microcephaly, growth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

序列相似性 Belongs to the SMC family. RAD50 subfamily.
Contains 1 zinc-hook domain.

结构域 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.
翻译后修饰	Phosphorylated upon DNA damage, probably by ATM or ATR.
细胞定位	Nucleus. Chromosome > telomere. Localizes to discrete nuclear foci after treatment with genotoxic agents.

图片

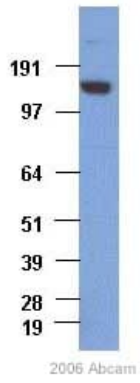


Western blot - Anti-Rad50 antibody [13B3/2C6] (ab89)

This picture was kindly supplied as part of the reviews for **ab214** and for ab89 submitted by Anya Polischouk.

The bands represent nuclear (N) and cytoplasmic (C) extract from human lung cancer cells (U1810).

This image was generated using the ascites version of the product.



Western blot - Anti-Rad50 antibody [13B3/2C6] (ab89)

Anti-Rad50 antibody [13B3/2C6] (ab89) at 1/1000 dilution + 50 ug Human HEK293 total cell lysate

Secondary
HRP conjugated Donkey Anti-Mouse IgG

Developed using the ECL technique.

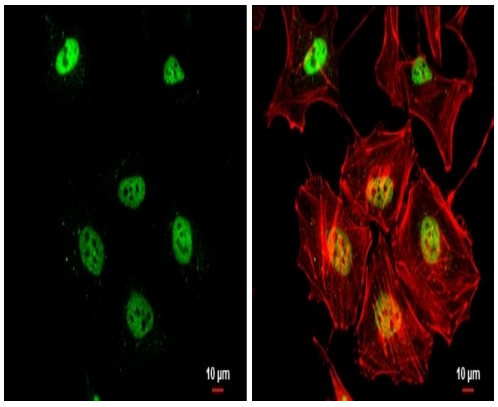
Performed under non-reducing conditions.

Predicted band size: 146 kDa
Observed band size: 160 kDa
Additional bands at: 300 kDa (possible non-specific binding)

Exposure time: 30 seconds

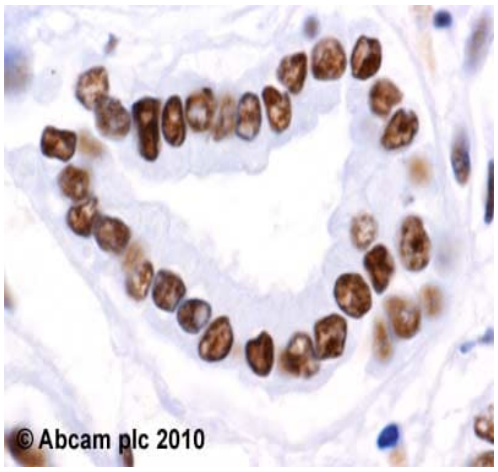
This image is courtesy of an Abreview submitted by **Philippe Szankasi** on **24 February 2006.**

This image was generated using the ascites version of the product.



Immunocytochemistry - Anti-Rad50 antibody [13B3/2C6] (ab89)

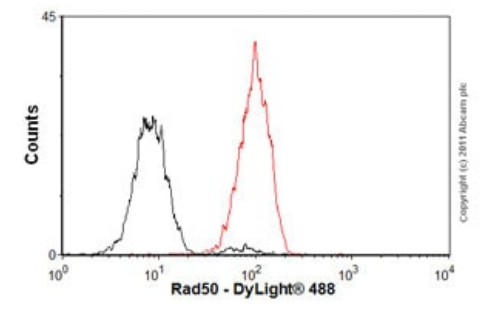
Immunocytochemical analysis of 4% paraformaldehyde-fixed, HeLa cells labelling Rad50 with ab89 at 1/200 dilution (green). Phalloidin at a 1/200 dilution was used to counterstain the cytoskeleton (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rad50 antibody [13B3/2C6] (ab89)

ab89 (1µg/ml) staining RAD50 in human placenta, using an automated system (DAKO Autostainer Plus). Using this protocol there is strong nuclear staining.
Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

This image was generated using the ascites version of the product.



Flow Cytometry - Anti-Rad50 antibody [13B3/2C6] (ab89)

Overlay histogram showing HeLa cells stained with ab89 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab89, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

This image was generated using the ascites version of the product.

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