


Anti-Rad51 antibody [14B4] ab213

重组

★★★★★ 9 Abreviews 83 References 8 图像

概述

| | |
|-------|---|
| 产品名称 | Anti-Rad51抗体[14B4] |
| 描述 | 小鼠单克隆抗体[14B4] to Rad51 |
| 宿主 | Mouse |
| 经测试应用 | 适用于: IHC-P, WB, ICC/IF |
| 种属反应性 | 与反应: Human 预测可用于: Mouse, Rat  |
| 免疫原 | Recombinant full length protein corresponding to Human Rad51 aa 1-338. Database link: Q06609 |
| 阳性对照 | WB: RAD51 shRNA transfected (+) 293T whole cell extracts, Jurkat, Raji and NCI-H929 whole cell lysate. IHC-P: BT483 xenograft tissue, human colon esophagus tissue. |
| 常规说明 | <p>This product was changed from ascites to tissue culture supernatant on 17th September 2018. 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.</p> <p>The production method has changed from hybridoma to recombinant on 22nd March 2024</p> <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> |

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 |

| | |
|------|-----------------------------|
| 无载体 | 是 |
| 纯度 | Immunogen affinity purified |
| 克隆 | 单克隆 |
| 克隆编号 | 14B4 |
| 骨髓瘤 | NS1 |
| 同种型 | IgG2a |
| 轻链类型 | kappa |

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab213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 |
|--------|-----------|--|
| IHC-P | ★★★★☆ (1) | 1/100 - 1/1000. |
| WB | ★★★★★ (5) | 1/500 - 1/3000. Predicted molecular weight: 37 kDa. Please see WB protocol in image legend. |
| ICC/IF | ★★★★☆ (2) | 1/100 - 1/1000. |

靶标

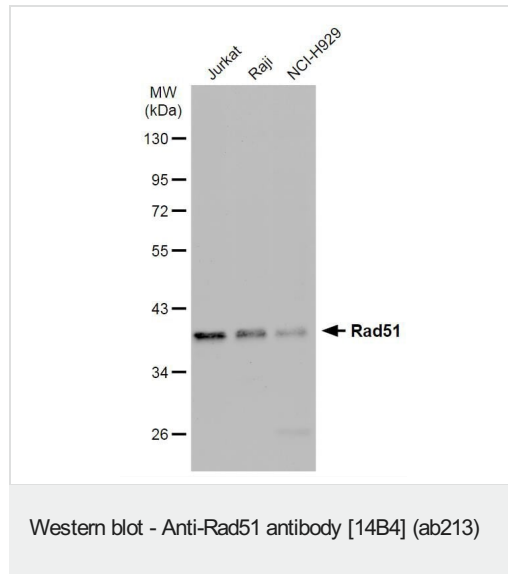
| | |
|-------|--|
| 功能 | Plays an important role in homologous strand exchange, a key step in DNA repair through homologous recombination. Binds to single and double-stranded DNA and exhibits DNA-dependent ATPase activity. Catalyzes the recognition of homology and strand exchange between homologous 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. |
| 组织特异性 | Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast. |
| 疾病相关 | Breast cancer Mirror movements 2 Defects in RAD51 are found in a patient with microcephaly, mental retardation without bone marrow failure and pediatric cancers. |
| 序列相似性 | Belongs to the RecA family. RAD51 subfamily. Contains 1 HhH domain. |
| 结构域 | The nuclear localization may reside in the C-terminus (between 259 and 339 AA). |
| 翻译后修饰 | Ubiquitinated by the SCF(FBXO18) E3 ubiquitin ligase complex, regulating RAD51 subcellular location and preventing its association with DNA. Phosphorylated. Phosphorylation of Thr-309 by CHEK1 may enhance association with chromatin at sites of DNA damage and promote DNA repair by homologous recombination. |

Phosphorylation by ABL1 inhibits function.

细胞定位

Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion matrix. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage. DNA damage induces an increase in nuclear levels. Together with FIGL1, redistributed in discrete nuclear DNA damage-induced foci after ionizing radiation (IR) or camptothecin (CPT) treatment. Accumulated at sites of DNA damage in a SPIDR-dependent manner.

图片



All lanes : Anti-Rad51 antibody [14B4] (ab213) at 1/500 dilution

Lane 1 : Jurkat whole cell lysate

Lane 2 : Raji whole cell lysate

Lane 3 : NCI-H929 whole cell lysate

Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-mouse IgG antibody at 1/10000 dilution

Developed using the ECL technique.

Predicted band size: 37 kDa

10% SDS-PAGE

Running condition: 80V, 15min; 140V, 40 min

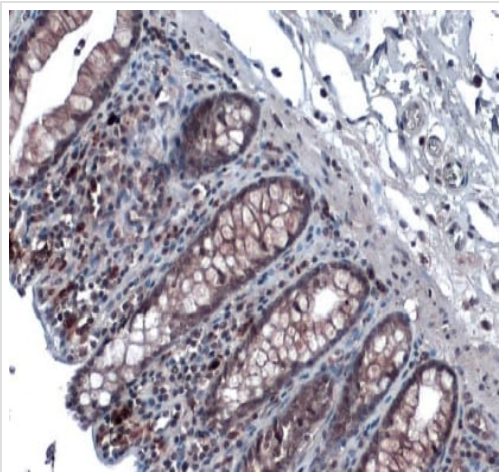
Transfer condition: Semi-dry, 18 V, 60 min (Nitrocellulose membrane)

Blocking condition: 5% non-fat milk in TBST, RT, 60 min.

Primary antibody incubation: 4°C overnight.

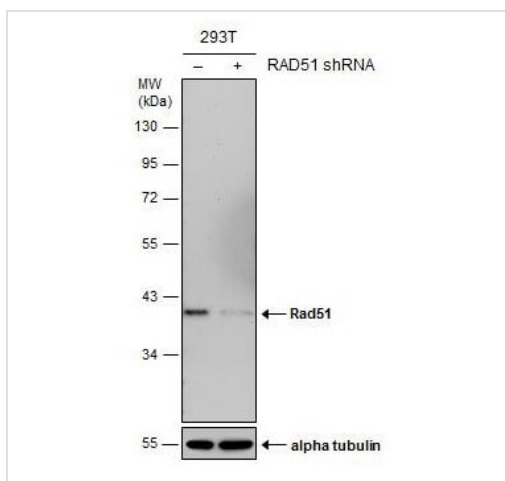
Washing condition: 5 ml TBST, 4 x 5 min.

Chemiluminescent HRP Substrate.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rad51 antibody [14B4] (ab213)

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling Rad51 with ab213 at 1/100 dilution at 4°C overnight. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min (Cuisinart Electric Pressure Cooker #EPC-1200, choose "high pressure"). Endogenous peroxidase blocking: 3% H₂O₂, RT, 30minutes. Blocking: 1.5% goat serum (dilute goat serum by 1xPBS), RT, 30 min. Secondary antibody: ABC HRP Kit (Mouse IgG), 1:200, RT, 30min. Washing: PBS, 2 x 5 mins. Chromogen system: DAB.



Western blot - Anti-Rad51 antibody [14B4] (ab213)

All lanes : Anti-Rad51 antibody [14B4] (ab213) at 1/500 dilution

Lane 1 : Non-transfected 293T (-) whole cell extracts

Lane 2 : RAD51 shRNA transfected (+) 293T whole cell extracts

Lysates/proteins at 30 µg per lane.

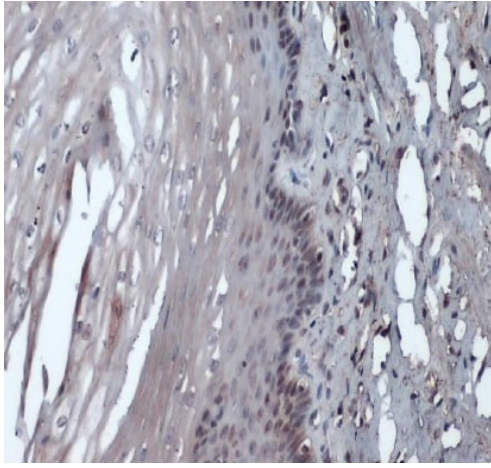
Secondary

All lanes : HRP-conjugated anti-mouse IgG antibody

Developed using the ECL technique.

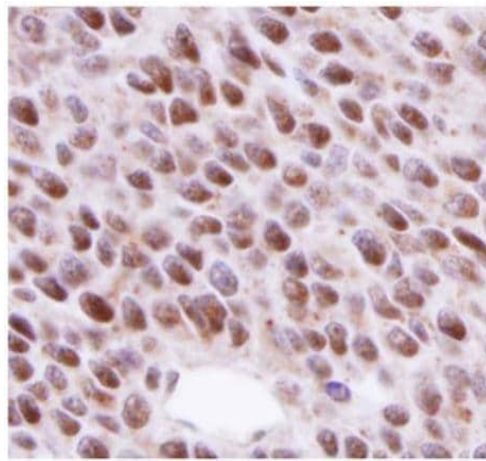
Predicted band size: 37 kDa

10% SDS-PAGE



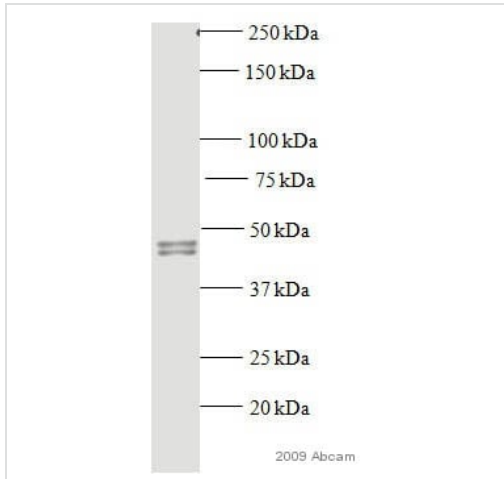
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rad51 antibody [14B4] (ab213)

Immunohistochemical analysis of paraffin-embedded human esophagus tissue labeling Rad51 with ab213 at 1/100 dilution at 4°C overnight. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min (Cuisinart Electric Pressure Cooker #EPC-1200, choose "high pressure"). Endogenous peroxidase blocking: 3% H₂O₂, RT, 30minutes. Blocking: 1.5% goat serum (dilute goat serum by 1xPBS), RT, 30 min. Secondary antibody: ABC HRP Kit (Mouse IgG), 1:200, RT, 30min. Washing: PBS, 2 x 5 mins. Chromogen system: DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rad51 antibody [14B4] (ab213)

Immunohistochemical analysis of paraffin-embedded BT483 xenograft tissue labeling RAD51 with ab213 at 1/200 dilution. Nuclear staining is observed. Antigen Retrieval: EDTA based, pH 8.0 buffer, 15min.



Western blot - Anti-Rad51 antibody [14B4] (ab213)

Image courtesy of an anonymous Abreview.

Anti-Rad51 antibody [14B4] (ab213) at 1/500 dilution + lysate prepared from murine NIH3T3 cells at 20 µg

Secondary

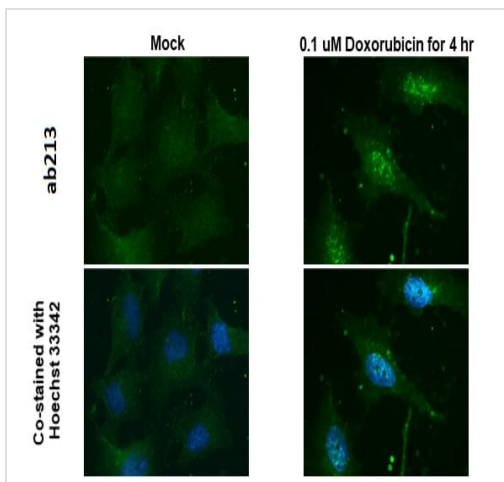
HRP conjugated anti-mouse IgG at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 37 kDa

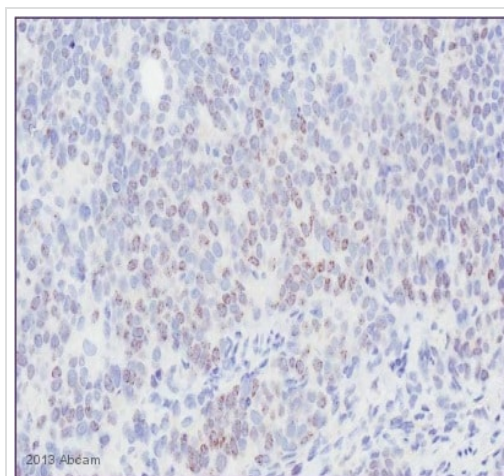
Observed band size: 42,45 kDa

Exposure time: 5 minutes



Immunocytochemistry/ Immunofluorescence - Anti-Rad51 antibody [14B4] (ab213)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed Mock and treated HeLa cells labelling Rad51 with ab213 at 1/500 dilution (Green). Blue: Fluoroshield with DAPI



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rad51 antibody [14B4] (ab213)

This image is courtesy of an anonymous Abreview

ab213 staining Rad51 in Human Lovo xenograft tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 20% serum for 20 minutes at room temperature; antigen retrieval was by heat mediation. Samples were incubated with primary antibody (1/100 in TBST) for 1 hour. An undiluted HRP-conjugated Donkey anti-mouse IgG polyclonal was used as the secondary antibody.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors