# abcam

# Product datasheet

# Anti-Rad51 antibody - BSA and Azide free ab88572

★★★★★ 13 Abreviews 51 References 8 图像

概述

产品名称 Anti-Rad51抗体- BSA and Azide free

**小鼠多克隆抗体to Rad51 - BSA and Azide free** 

**宿主** Mouse

免疫原 Recombinant full length protein within Human Rad51 aa 1-350. The exact immunogen sequence

used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific

Support team to discuss your requirements.

**阳性**对照 WB: lysate from PC-12, Raw 264.7, Jurkat, NIH 3T3 cells or Human colon tissue. IHC: Human

testis. ICC/IF: HeLa cells.

常规说明

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: 7.4

Constituent: 100% PBS

**无载体** 是

纯**度** Protein A purified

1

#### The Abpromise guarantee

### Abpromise™承诺保证使用ab88572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
WB	<b>★★★★</b> (5)	Use a concentration of 1 µg/ml. Predicted molecular weight: 37 kDa.
IHC-P	<b>★★★★ (1)</b>	Use a concentration of 3 $\mu$ g/ml. Antigen retrieval is not essential but may optimise staining. The microwave method is recommended.
ICC/IF	<b>★★★★ (4)</b>	Use a concentration of 10 μg/ml.

#### 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.

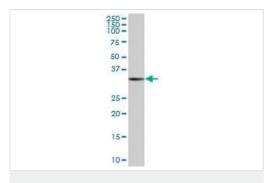
Phosphorylated. Phosphorylation of Thr-309 by CHEK1 may enhance association with chromatin

at sites of DNA damage and promote DNA repair by homologous recombination.

Phosphorylation by ABL1 inhibits function.

#### 细胞定位

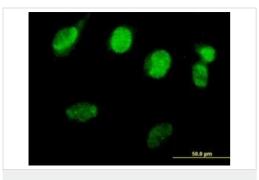
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion matrix. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage. DNA damage induces an increase in nuclear levels. Together with FIGNL1, 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.



Western blot - Anti-Rad51 antibody - BSA and Azide free (ab88572)

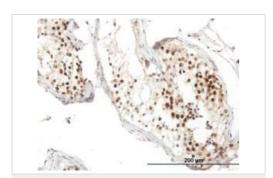
Anti-Rad51 antibody - BSA and Azide free (ab88572) at 1  $\mu g/ml$  + Human colon lysate at 50  $\mu g$ 

Predicted band size: 37 kDa



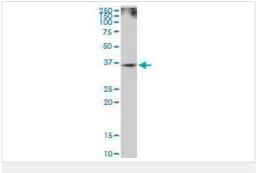
Immunocytochemistry/ Immunofluorescence - Anti-Rad51 antibody - BSA and Azide free (ab88572)

Immunofluorescent staining of Rad51 in HeLa cells using ab88572 at 10  $\mu g/\text{ml}.$ 



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Rad51 antibody - BSA and Azide free (ab88572)

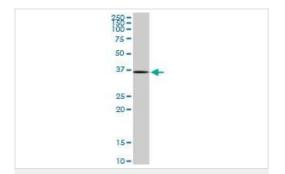
ab88572 at  $3\mu g/ml$  staining Rad51 in formalin-fixed, paraffinembedded Human testis tissue.



Western blot - Anti-Rad51 antibody - BSA and Azide free (ab88572)

Anti-Rad51 antibody - BSA and Azide free (ab88572) at 1  $\mu$ g/ml + Rat PC-12 cell lysate at 50  $\mu$ g

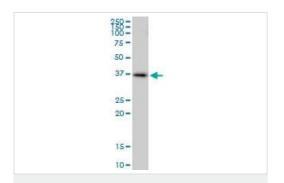
Predicted band size: 37 kDa



Western blot - Anti-Rad51 antibody - BSA and Azide free (ab88572)

Anti-Rad51 antibody - BSA and Azide free (ab88572) at 1  $\mu$ g/ml + Raw 264.7 cell lysate (Mouse) at 50  $\mu$ g

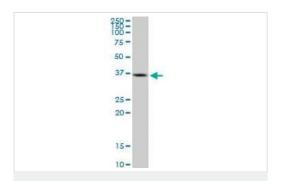
Predicted band size: 37 kDa



Western blot - Anti-Rad51 antibody - BSA and Azide free (ab88572)

Anti-Rad51 antibody - BSA and Azide free (ab88572) at 1  $\mu$ g/ml + Human Jurkat cell lysate at 50  $\mu$ g

Predicted band size: 37 kDa



Western blot - Anti-Rad51 antibody - BSA and Azide free (ab88572)

Anti-Rad51 antibody - BSA and Azide free (ab88572) at 1  $\mu g/ml$  + NIH 3T3 cell lysate (Mouse) at 50  $\mu g$ 

Predicted band size: 37 kDa



All lanes : Anti-Rad51 antibody - BSA and Azide free (ab88572) at  $1 \mu g/ml$ 

Lane 1: transfected 293T cell lysate

Lane 2: non transfected lysate

Lysates/proteins at 25 µg per lane.

Predicted band size: 37 kDa

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 <a href="https://www.abcam.cn/abpromise">https://www.abcam.cn/abpromise</a> or contact our technical team.

### Terms and conditions

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