abcam

# Product datasheet

# Anti-RNF168 antibody ab229271

2 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-RNF168 antibody |
| **Description** | Rabbit polyclonal to RNF168 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** WB |
| **Species reactivity** | **Reacts with:** Human<br>**Predicted to work with:** Chimpanzee |
| **Immunogen** | Recombinant fragment within Human RNF168 (internal sequence). The exact sequence is proprietary.<br>Database link: Q8IYW5 |
| **Positive control** | WB: MDA-MB-231 whole cell and nuclear extracts; RNF168-transfected HEK-293T whole cell lysate. |

## Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| **Storage buffer** | pH: 7.00<br>Preservative: 0.025% Proclin<br>Constituents: PBS, 20% Glycerol |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

Our Abpromise guarantee covers the use of **ab229271** 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 |
|---|---|---|
| WB | | 1/500 - 1/10000. Predicted molecular weight: 65 kDa. |

## Target

**Function**
E3 ubiquitin-protein ligase required for accumulation of repair proteins to sites of DNA damage. Acts with UBE2N/UBC13 to amplify the RNF8-dependent histone ubiquitination. Recruited to sites of DNA damage at double-strand breaks (DSBs) by binding to ubiquitinated histone H2A and ubiquitinates histone H2A and H2AX, leading to amplify the RNF8-dependent H2A ubiquitination and promoting the formation of 'Lys-63'-linked ubiquitin conjugates. This leads to concentrate ubiquitinated histones H2A and H2AX at DNA lesions to the threshold required for recruitment of TP53BP1 and BRCA1.

**Pathway**
Protein modification; protein ubiquitination.

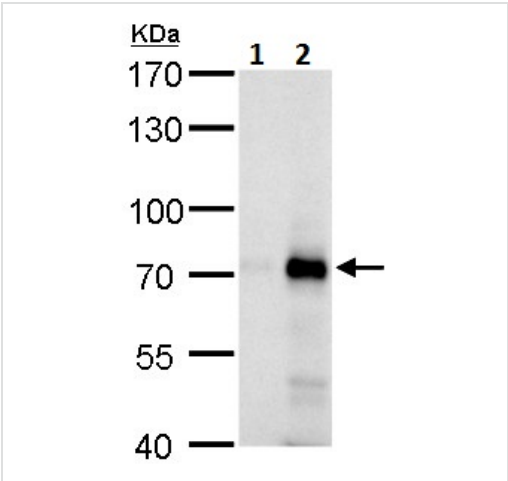
**Involvement in disease**
Defects in RNF168 are the cause of Riddle syndrome (RIDDLES) [MIM:611943]. Riddle syndrome is characterized by increased radiosensitivity, immunodeficiency, mild motor control and learning difficulties, facial dysmorphism, and short stature. Defects are probably due to impaired localization of TP53BP1 and BRCA1 at DNA lesions.

**Sequence similarities**
Belongs to the RNF168 family.
Contains 1 RING-type zinc finger.

**Domain**
The MIU motifs (motif interacting with ubiquitin) mediate the interaction with ubiquitin and the localization at sites of DNA damage.

**Cellular localization**
Nucleus. Localizes to sites of DNA damage.

## Images




Western blot - Anti-RNF168 antibody (ab229271)

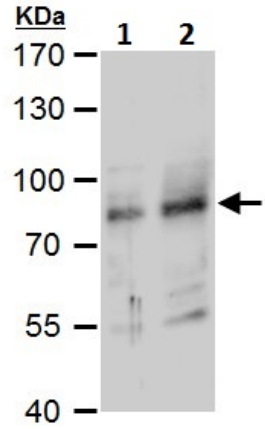
**All lanes :** Anti-RNF168 antibody (ab229271) at 1/5000 dilution

**Lane 1 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
**Lane 2 :** RNF168-transfected HEK-293T whole cell lysate

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 65 kDa

7.5% SDS-PAGE gel.




Western blot - Anti-RNF168 antibody (ab229271)

**All lanes :** Anti-RNF168 antibody (ab229271) at 1/1000 dilution

**Lane 1 :** MDA-MB-231(human breast adenocarcinoma cell line) whole cell extract
**Lane 2 :** MDA-MB-231 nuclear extract

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 65 kDa

7.5% SDS-PAGE gel.

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

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