abcam

Product datasheet

# Anti-p53R2 antibody [EPR8816] - BSA and Azide free ab249090

KO 評価済 リコンビナント RabMAb

画像数 7

## 製品の概要

| | |
|---|---|
| **製品名** | Anti-p53R2 antibody [EPR8816] - BSA and Azide free |
| **製品の詳細** | Rabbit monoclonal [EPR8816] to p53R2 - BSA and Azide free |
| **由来種** | Rabbit |
| **アプリケーション** | **適用あり:** ICC/IF, IHC-P, WB, Flow Cyt (Intra), IP |
| **種交差性** | **交差種:** Human |
| **免疫原** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **ポジティブ・コントロール** | WB: HeLa, HCT116, MCF7, Human skeletal muscle, and SW480 lysates. IHC-P: Human breast carcinoma tissue. ICC/IF: HeLa cells. Flow Cyt (intra): MCF7 cells. IP: MCF7 cells. |
| **特記事項** | ab249090 is the carrier-free version of **ab154194**.<br><br>Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.<br><br>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.<br><br>Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.<br><br>This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br><br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. |

## 製品の特性

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|---|---|
| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **バッファー** | pH: 7.2<br>Constituent: PBS |
| **キャリア・フリー** | はい |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |
| **クローン名** | EPR8816 |
| **アイソタイプ** | IgG |

## アプリケーション

**The Abpromise guarantee** Abpromise保証は、次のテスト済みアプリケーションにおけるab249090の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項 |
|---|---|---|
| **ICC/IF** | | Use at an assay dependent concentration. |
| **IHC-P** | | Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |
| **WB** | | Use at an assay dependent concentration. Predicted molecular weight: 40 kDa. |
| **Flow Cyt (Intra)** | | Use at an assay dependent concentration. |
| **IP** | | Use at an assay dependent concentration. |

## ターゲット情報

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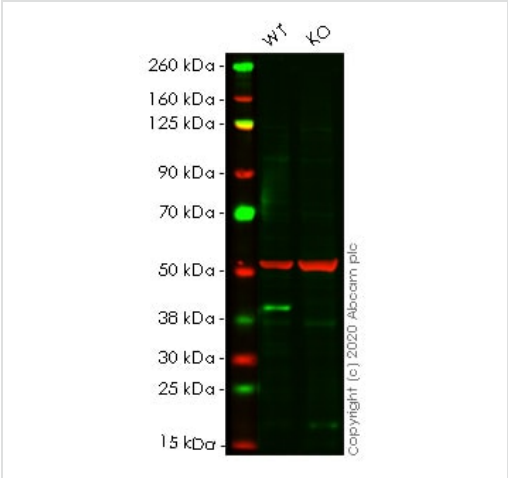
|---|---|
| **機能** | Plays a pivotal role in cell survival by repairing damaged DNA in a p53/TP53-dependent manner. Supplies deoxyribonucleotides for DNA repair in cells arrested at G1 or G2. Contains an iron-tyrosyl free radical center required for catalysis. Forms an active ribonucleotide reductase (RNR) complex with RRM1 which is expressed both in resting and proliferating cells in response to DNA damage. |
| **組織特異性** | Widely expressed at a high level in skeletal muscle and at a weak level in thymus. Expressed in epithelial dysplasias and squamous cell carcinoma. |
| **パスウェイ** | Genetic information processing; DNA replication. |
| **関連疾患** | Defects in RRM2B are the cause of mitochondrial DNA depletion syndrome type 8A (MTDPS8A) [MIM:612075]. A disorder due to mitochondrial dysfunction characterized by various combinations of neonatal hypotonia, neurological deterioration, respiratory distress, lactic acidosis, and renal tubulopathy.<br>Defects in RRM2B are the cause of mitochondrial DNA depletion syndrome type 8B (MTDPS8B) |

[MIM:612075]. A disease due to mitochondrial dysfunction and characterized by ophthalmoplegia, ptosis, gastrointestinal dysmotility, cachexia, peripheral neuropathy.
Defects in RRM2B are the cause of progressive external ophthalmoplegia with mitochondrial DNA deletions autosomal dominant type 5 (PEOA5) [MIM:613077]. A disorder characterized by progressive weakness of ocular muscles and levator muscle of the upper eyelid. In a minority of cases, it is associated with skeletal myopathy, which predominantly involves axial or proximal muscles and which causes abnormal fatigability and even permanent muscle weakness. Ragged-red fibers and atrophy are found on muscle biopsy. A large proportion of chronic ophthalmoplegias are associated with other symptoms, leading to a multisystemic pattern of this disease. Additional symptoms are variable, and may include cataracts, hearing loss, sensory axonal neuropathy, ataxia, depression, hypogonadism, and parkinsonism.

**配列類似性** Belongs to the ribonucleoside diphosphate reductase small chain family.

**細胞内局在** Cytoplasm. Nucleus. Translocates from cytoplasm to nucleus in response to DNA damage.

## 画像




Western blot - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

**All lanes :** Anti-p53R2 antibody [EPR8816] (**ab154194**) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** RRM2B knockout HeLa cell lysate

Lysates/proteins at 40 µg per lane.

Performed under reducing conditions.

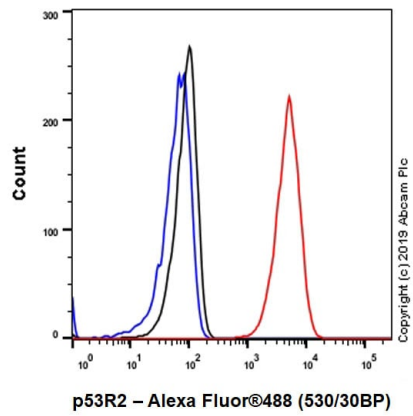
**Predicted band size:** 40 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab154194**).

**Lanes 1- 2:** Merged signal (red and green). Green - **ab154194** observed at 40 kDa. Red - Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) observed at 50 kDa.

**ab154194** was shown to react with p53R2 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261769** (knockout cell lysate **ab257215**) was used. Wild-type HeLa and RRM2B knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab154194** and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L

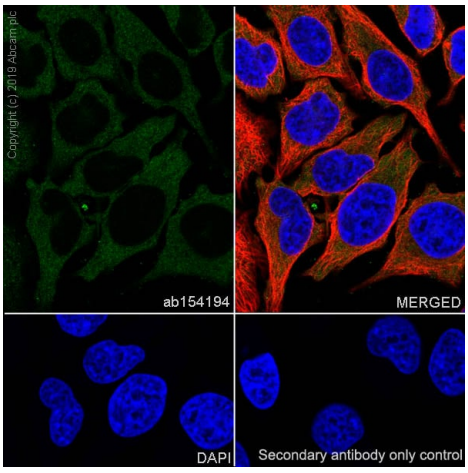
(IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Flow Cytometry (Intracellular) - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling p53R2 with purified **ab154194** at 1/20 dilution (10µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

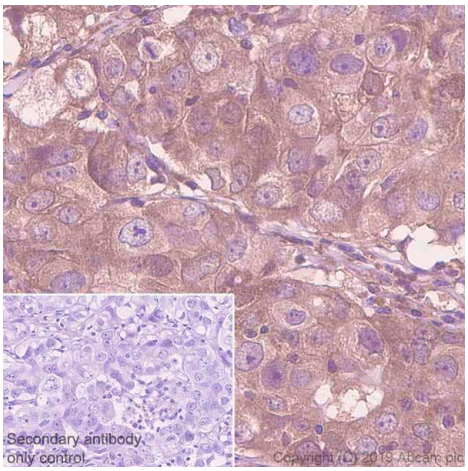
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab154194**).




Immunocytochemistry/ Immunofluorescence - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling p53R2 with purified **ab154194** at 1/50 dilution (2.2 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

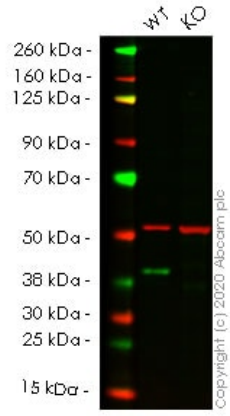
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab154194**).




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling p53R2 with purified **ab154194** at 1/500 dilution (0.22 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab154194**).




Western blot - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

**All lanes :** Anti-p53R2 antibody [EPR8816] (**ab154194**) at 1/1000 dilution

**Lane 1 :** Wild-type HCT116 cell lysate
**Lane 2 :** RRM2B knockout HCT116 cell lysate

Lysates/proteins at 20 µg per lane.

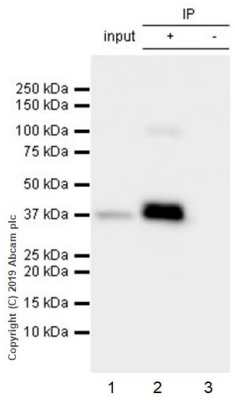
Performed under reducing conditions.

**Predicted band size:** 40 kDa
**Observed band size:** 40 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab154194**).

**Lanes 1- 2:** Merged signal (red and green). Green - **ab154194** observed at 40 kDa. Red - Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) observed at 50 kDa.

**ab154194** was shown to react with p53R2 in wild-type HCT116 cells in western blot. Loss of signal was observed when knockout cell line **ab266897** (knockout cell lysate **ab257216**) was used. Wild-type HCT116 and RRM2B knockout HCT116 cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab154194** and Anti-alpha Tubulin antibody [DM1A] - Loading Control (**ab7291**) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Immunoprecipitation - Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

**ab154194** (purified ) at 1/20 dilution (0.5ug) immunoprecipitating p53R2 in MCF7 whole cell lysate.

**Lane 1 (input):** MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10ug
**Lane 2 (+): ab154194** & MCF7 whole cell lysate
**Lane 3 (-):** Rabbit monoclonal IgG (**ab172730**) instead of **ab154194** in MCF7 whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/1000 dilution.

**Blocking and diluting buffer:** 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab154194**).


Anti-p53R2 antibody [EPR8816] - BSA and Azide free (ab249090)

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