

# Anti-ATR (phospho S428) antibody [EPR2184] ab178407

リコンビナント RabMAb

**18 References** [画像数 5](#)

### 製品の概要

製品名	Anti-ATR (phospho S428) antibody [EPR2184]
製品の詳細	Rabbit monoclonal [EPR2184] to ATR (phospho S428)
由来種	Rabbit
特異性	<i>Stimulation may be required to allow detection of the phosphorylated protein. Please see images below for recommended treatment conditions and positive controls.</i>
アプリケーション	<b>適用あり:</b> Dot blot, IHC-P, WB <b>適用なし:</b> Flow Cyt, ICC/IF or IP
種交差性	<b>交差種:</b> Human <b>非交差種:</b> Mouse, Rat
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	IHC: Human breast tissue, human thyroid tissue; WB: Untreated HeLa, HeLa treated with 4mM hydroxyurea for 20 hours whole cell lysate;
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### 製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
精製度	Protein A purified

ポリモノ	モノクローナル
クローン名	EPR2184
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ab178407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。

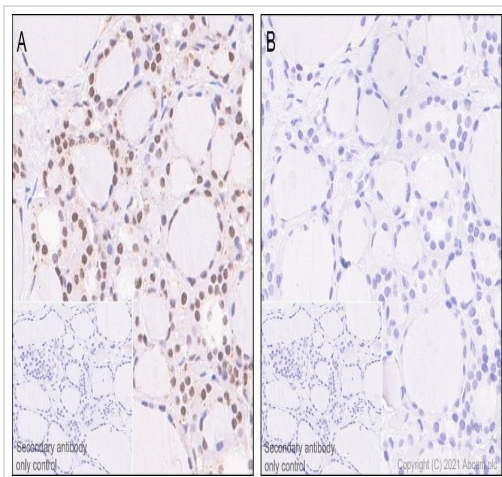
アプリケーション	Abreviews	特記事項
Dot blot		1/1000.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000 - 1/10000. Predicted molecular weight: 300 kDa.

**追加情報** Is unsuitable for Flow Cyt, ICC/IF or IP.

## ターゲット情報

<b>機能</b>	Serine/threonine protein kinase which activates checkpoint signaling upon genotoxic stresses such as ionizing radiation (IR), ultraviolet light (UV), or DNA replication stalling, thereby acting as a DNA damage sensor. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates BRCA1, CHEK1, MCM2, RAD17, RPA2, SMC1 and p53/TP53, which collectively inhibit DNA replication and mitosis and promote DNA repair, recombination and apoptosis. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX at sites of DNA damage, thereby regulating DNA damage response mechanism. Required for FANCD2 ubiquitination. Critical for maintenance of fragile site stability and efficient regulation of centrosome duplication.
<b>組織特異性</b>	Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.
<b>関連疾患</b>	Defects in ATR are a cause of Seckel syndrome type 1 (SCKL1) [MIM:210600]. SCKL1 is a rare autosomal recessive disorder characterized by growth retardation, microcephaly with mental retardation, and a characteristic 'bird-headed' facial appearance.
<b>配列類似性</b>	Belongs to the PI3/PI4-kinase family. ATM subfamily. Contains 1 FAT domain. Contains 1 FATC domain. Contains 2 HEAT repeats. Contains 1 PI3K/PI4K domain.
<b>翻訳後修飾</b>	Phosphorylated; autophosphorylates in vitro.
<b>細胞内局在</b>	Nucleus. Nucleus > PML body. Depending on the cell type, it can also be found in PML nuclear bodies. Recruited to chromatin during S-phase. Redistributes to discrete nuclear foci upon DNA damage, hypoxia or replication fork stalling.

## 画像

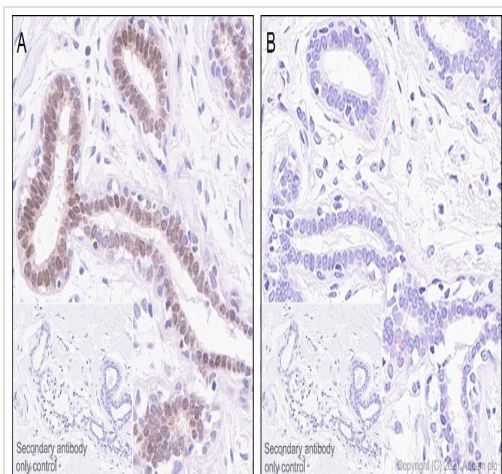


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

Immunohistochemical analysis of Paraffin-embedded human thyroid tissue sections labelling ATR with ab178407 at 1/5000 dilution followed by ready to use secondary **ab209101** Rabbit specific IHC polymer detection kit HRP/DAB. Counterstained with Hematoxylin. Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes.

Nuclear staining on human thyroid without alkaline phosphatase (or Lambda Protein Phosphatase) treatment; No signal was detected when tissues were treated with alkaline phosphatase (image B).

The section was incubated with ab178407 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument

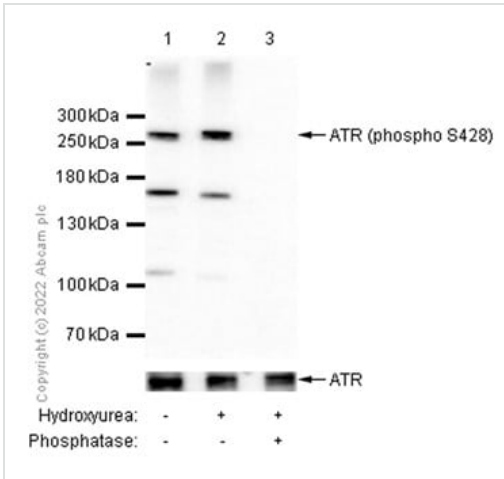


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

Immunohistochemical analysis of Paraffin-embedded human breast tissue sections labelling ATR with ab178407 at 1/5000 dilution followed by ready to use secondary **ab209101** Rabbit specific IHC polymer detection kit HRP/DAB. Counterstained with Hematoxylin. Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes.

Nuclear staining on human breast without alkaline phosphatase (or Lambda Protein Phosphatase) treatment; No signal was detected when tissues were treated with alkaline phosphatase (image B).

The section was incubated with ab178407 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument



Western blot - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

**All lanes :** Anti-ATR (phospho S428) antibody [EPR2184] (ab178407) at 1/1000 dilution

**Lane 1 :** Untreated HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** HeLa treated with 4mM hydroxyurea for 20 hours whole cell lysate

**Lane 3 :** HeLa treated with 4mM hydroxyurea for 20 hours whole cell lysate, then the membrane treated with Alkaline Phosphatase for 1 hour

Lysates/proteins at 15 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

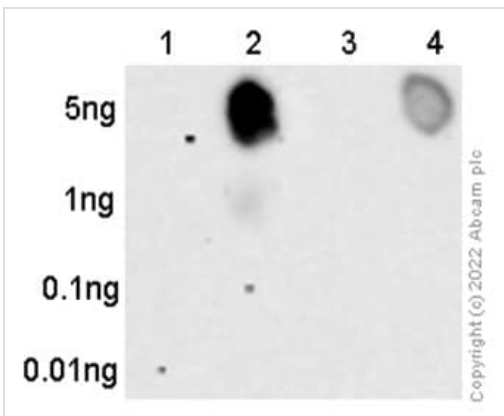
**Predicted band size:** 300 kDa

**Observed band size:** 270 kDa

Blocking and diluting buffer: 5% NFDm/TBST

Exposure time: 60 seconds

We are unsure of the nature of the 160kDa band.



Dot Blot - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

Dot blot analysis using 1/1000 dilution ab178407 and Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) secondary at 1/100000 dilution.

Blocking and diluting buffer: 5% NFDm/TBST

Lane 1: ATR non-phospho peptide





Lane 2: ATR S428 phospho peptide

Lane 3: ATR S435 phospho peptide

Lane 4: ATR S428+S435 phospho peptide

Exposure time: 3 minutes

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

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

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