

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

重组 RabMAb

18 References [5 图像](#)

概述

产品名称	Anti-ATR (phospho S428)抗体[EPR2184]
描述	兔单克隆抗体[EPR2184] to ATR (phospho S428)
宿主	Rabbit
特异性	<i>Stimulation may be required to allow detection of the phosphorylated protein. Please see images below for recommended treatment conditions and positive controls.</i>
经测试应用	适用于: Dot blot, IHC-P, WB 不适用于: Flow Cyt, ICC/IF or IP
种属反应性	与反应: Human 不与反应: Mouse, Rat
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	IHC: Human breast tissue, human thyroid tissue; WB: Untreated HeLa, HeLa treated with 4mM hydroxyurea for 20 hours whole cell lysate;
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EPR2184
同种型	IgG

应用

The Abpromise guarantee Abpromise™ 承诺保证使用 ab178407 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。

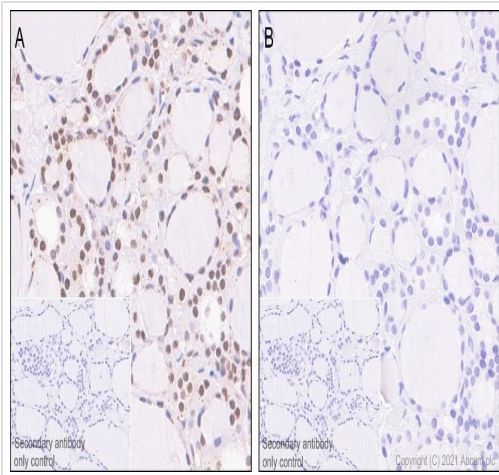
应用	Ab评论	说明
Dot blot		1/1000.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000 - 1/10000. Predicted molecular weight: 300 kDa.

应用说明 Is unsuitable for Flow Cyt, ICC/IF or IP.

靶标

功能	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.
组织特异性	Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.
疾病相关	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.
序列相似性	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.
翻译后修饰	Phosphorylated; autophosphorylates in vitro.
细胞定位	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.

图片

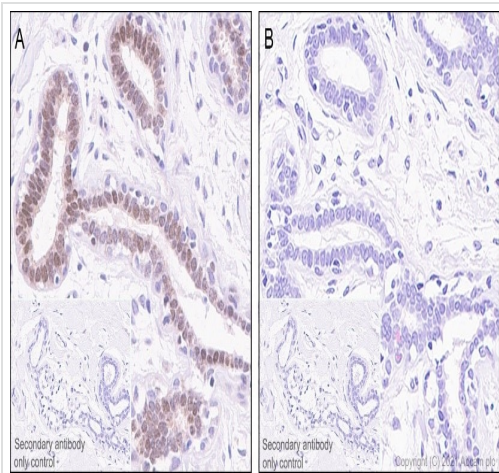


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

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

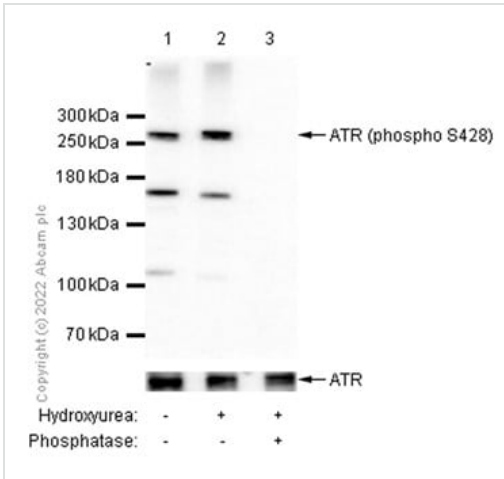


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATR (phospho S428) antibody [EPR2184] (ab178407)

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

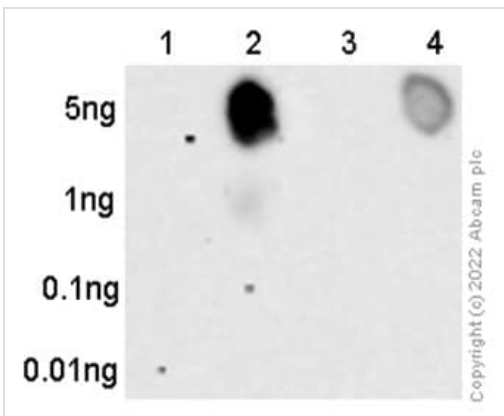
Predicted band size: 300 kDa

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?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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

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