# abcam

### Product datasheet

## Anti-ATR antibody ab10312

7 References 画像数 2

製品の概要

製品名 Anti-ATR antibody

製品の詳細 Rabbit polyclonal to ATR

由来種 Rabbit

特異性 We have data to indicate that this antibody may not cross react with Xenopus laevis. However,

this has not been conclusively tested and expression levels may vary in certain cell lines/tissues.

アプリケーション **適用あり**: WB

種交差性 交差種: Human

交差が予測される動物種: Chimpanzee, Rhesus monkey, Gorilla, Orangutan

免疫原 Synthetic peptide within Human ATR aa 400-500. 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.

Database link: Q13535

ポジティブ・コントロール Whole cell lysate from HeLa and U2OS cells

特記事項 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

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**バッファー** pH: 7

Preservative: 0.1% Sodium azide

Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris

精製度 Immunogen affinity purified

**ポリ/モノ** ポリクローナル

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#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab10312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
WB		1/15000 - 1/30000. Detects a band of approximately 300 kDa (predicted molecular weight: 317 kDa).

#### ターゲット情報

機能

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.

組織特異性

Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but

not in heart, testis and ovary.

関連疾患

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.

配列類似性

Belongs to the Pl3/Pl4-kinase family. ATM subfamily.

Contains 1 FAT domain.
Contains 1 FATC domain.
Contains 2 HEAT repeats.
Contains 1 PI3K/PI4K domain.

翻訳後修飾

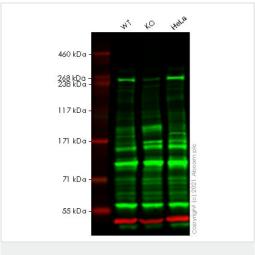
Phosphorylated; autophosphorylates in vitro.

細胞内局在

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



Western blot - Anti-ATR antibody (ab10312)

All lanes: Anti-ATR antibody (ab10312) at 1/15000 dilution

Lane 1: Wild-type A549 cell lysate

Lane 2: ATR knockout A549 cell lysate

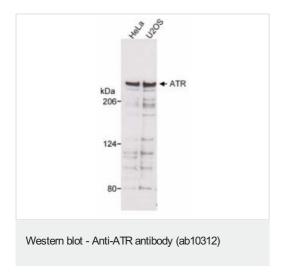
Lane 3: HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 317 kDa **Observed band size:** 260 kDa

False colour image of Western blot: Anti-ATR antibody staining at 1/15000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab10312 was shown to bind specifically to ATR. A band was observed at 260 kDa in wild-type A549 cell lysates with no signal observed at this size in ATR knockout cell line ab276104 (knockout cell lysate ab277987). To generate this image, wild-type and ATR knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.



Detection of human ATR by Western Blot. Samples: Whole cell lysate (20  $\mu$ g) from HeLa and U2OS cells separated on a 3 to 8% tris-acetate gel. Antibody: ab10312 used at 0.07 mg/ml. Detection: Chemiluminescence with 15 second exposure. Detection of human ATR by Western Blot. Samples: Whole cell lysate (20  $\mu$ g) from HeLa and U2OS cells separated on a 3 to 8% tris-acetate gel. Antibody: ab10312 used at 0.07 mg/ml. Detection: Chemiluminescence with 15 second exposure.

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

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