

For Research Use Only

# ATR Polyclonal antibody, PBS Only

Catalog Number: 19787-1-PBS

Featured Product



## Basic Information

**Catalog Number:**

19787-1-PBS

**Size:**

100ug, Concentration: 1 mg/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**GenBank Accession Number:**

NM\_001184

**GeneID (NCBI):**

545

**UNIPROT ID:**

Q13535

**Full Name:**

ataxia telangiectasia and Rad3 related

**Calculated MW:**

301 kDa

**Observed MW:**

250-290 kDa

**Purification Method:**

Antigen affinity purification

## Applications

**Tested Applications:**

WB, IP, Indirect ELISA

**Species Specificity:**

human, mouse

## Background Information

ATR, also named as FRP1, belongs to the PI3/PI4-kinase family and ATM subfamily. ATR is a 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. ATR recognizes the substrate consensus sequence [ST]-Q. ATR phosphorylates BRCA1, CHEK1, MCM2, RAD17, RPA2, SMC1 and TP53/p53, which collectively inhibit DNA replication and mitosis and promote DNA repair, recombination and apoptosis. ATR phosphorylates 'Ser-139' of histone variant H2AX/H2AFX at sites of DNA damage, thereby regulating DNA damage response mechanism. It is required for FANCD2 ubiquitination. It is critical for maintenance of fragile site stability and efficient regulation of centrosome duplication. ATR catalyze the reaction: ATP + a protein = ADP + a phosphoprotein. Defects in ATR are a cause of Seckel syndrome type 1 (SCKL1) which is a rare autosomal recessive disorder characterized by growth retardation, microcephaly with mental retardation, and a characteristic 'bird-headed' facial appearance. The antibody can recognize all the isoforms of ATR.

## Storage

**Storage:**

Store at -80°C.

**Storage Buffer:**

PBS only, pH7.3

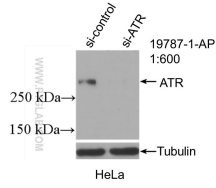
For technical support and original validation data for this product please contact:

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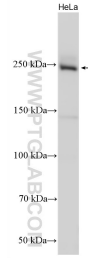
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## Selected Validation Data



WB result of ATR antibody (19787-1-AP; 1:600; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATR transfected HeLa cells. This data was developed using the same antibody clone with 19787-1-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 19787-1-AP (ATR antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 19787-1-PBS in a different storage buffer formulation.