

# Anti-Phospho-ATR (T1989) Antibody

## HA500405



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 301 kDa

**Description:** 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 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. Positively regulates the restart of stalled replication forks following activation by the KHDC3L-OOEP scaffold complex. 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. Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.

**Immunogen:** Synthetic peptide containing pThr1989 site Peptides for Immunization 1984-1995aa.

**Positive control:** HeLa cell lysate, HeLa treated with 1.5mM hydroxyurea for 16 hours cell lysate.

**Subcellular location:** Nucleus, Chromosome.

**Database links:** SwissProt: Q13535 Human

**Recommended Dilutions:**

**WB** 1: 1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

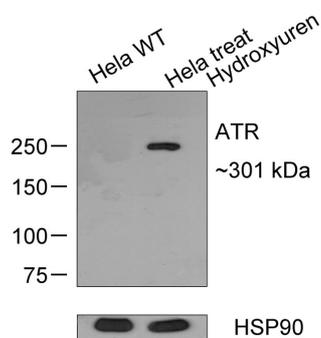
华安生物  
HUABIO  
www.huabio.cn

## Images

**Fig1:** Western blot analysis of Phospho-ATR (T1989) on different lysates with Rabbit anti-Phospho-ATR (T1989) antibody (HA500405) at 1/1,000 dilution.

Lane 1: HeLa cell lysate

Lane 2: HeLa treated with 1.5mM hydroxyurea for 16 hours cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 301 kDa

Observed band size: 301 kDa

Exposure time: 2 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500405) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Hanaki S., Habara M., Shimada M. UV-induced activation of ATR is mediated by UHRF2. *Genes Cells* 26:447-454(2021)
2. Bass T.E., Luzwick J.W., Kavanaugh G., Carroll C., Dungrawala H., Glick G.G., Feldkamp M.D., Putney R., Chazin W.J., Cortez D. ETAA1 acts at stalled replication forks to maintain genome integrity. *Nat. Cell Biol.* 18:1185-1195(2016)

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物  
HUABIO  
www.huabio.cn