

# ATR Polyclonal Antibody

Product Details	
Size	100 µL
Species Reactivity	Human
Published Species	Human
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	Fusion protein containing residues 400-460 of the human ATR protein.
Form	Liquid
Concentration	4 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS
Contains	0.05% sodium azide
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_325822

Applications	Tested	Dilution	Published
Western Blot (WB)	✓	1:1,000	14 Publications
Immunoprecipitation (IP)	✓	Assay dependent	2 Publications
Immunofluorescence (IF)	✓	Assay dependent	

## Product Specific Information

PA1-450 detects ATR (Ataxia Telangiectasia Mutated (ATM) and Rad3-related protein) from human cells.

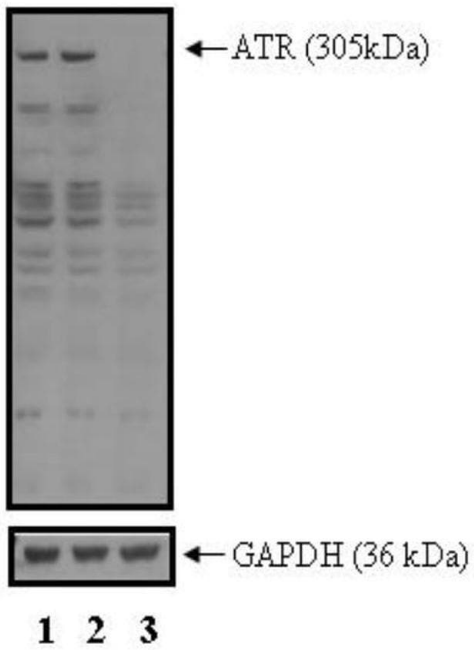
PA1-450 has been successfully used in Western blot immunofluorescence and immunoprecipitation procedures. By Western blot, this antibody detects an ~305 kDa protein representing ATR in lysate from UV irradiated K562 cells.

PA1-450 antigen is a fusion protein corresponding to amino acid residues 400-460 from human ATR.

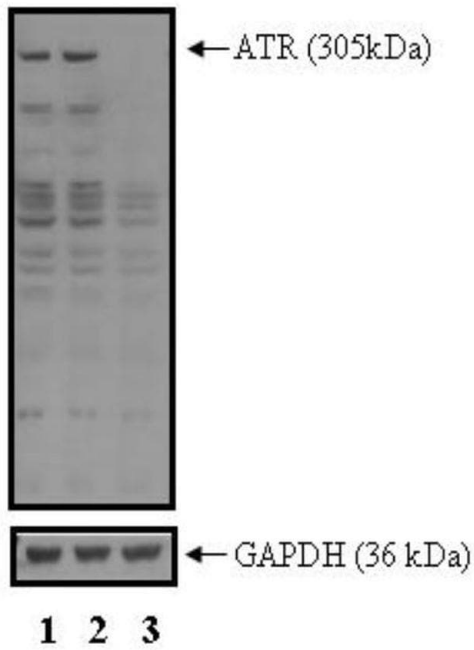
## Advanced Verification Data

### ATR Antibody (PA1-450)

The specificity of anti-ATR polyclonal antibody (Product # PA1-450) was demonstrated by siRNA knockdown. Western blot analysis of HeLa cell extracts using this antibody showed decreased level of ATR protein expression in cells transfected with ATR specific siRNA (lane 3) but not in controls (lane 1 and 2). KnockDown validation info.



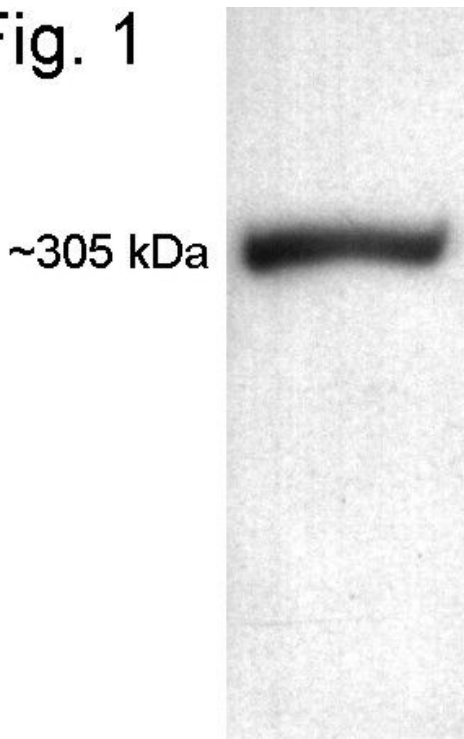
## Product Images For ATR Polyclonal Antibody



### ATR Antibody (PA1-450) in WB

Western blot analysis of ATR was performed with 10  $\mu$ g of HeLa cells transfected with Transfection Reagent alone (Lane 1), 100nM Non-Targeting control siRNA (Lane 2), or 100nM siRNA against ATR (Lane 3). Proteins were resolved using a NuPAGE® Novex 4-12% Bis-Tris Gel (Product # NP0322BOX), XCell SureLock™ Electrophoresis System (Product # EI0002), and a protein size ladder. Proteins were wet transferred to a Pierce Nitrocellulose Membrane (Product # 88025) OR Pierce PVDF Membrane (Product # 88518) and blocked with Pierce Starting Block T20 (PBS) Blocking Buffer (Product # 37539) for 1 hour at room temperature. ATR was detected at ~ 305 kDa using ATR Rabbit polyclonal antibody (Product # PA1-450) diluted in Pierce Starting Block T20 (PBS) Blocking Buffer 4°C overnight on a rocking platform. Pierce Goat Anti-Rabbit (Product # 31461) HRP-Conjugated Antibodies at a 1:2500 dilution were used and chemiluminescent detection was performed using Pierce Supersignal West Dura Maximum Sensitivity Substrate (Product # 37071). Relative density of the bands normalized to GAPDH (36 kDa). ATR Antibody (Product # PA1-450) confirms silencing of ATR expression.

Fig. 1



### ATR Antibody (PA1-450) in WB

Western blot on ATR in K562 whole cell lysate using Product # PA1-450.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 16 References

### Western Blot (14)

International journal of molecular sciences

#### Atrazine Triggers DNA Damage Response and Induces DNA Double-Strand Breaks in MCF-10A Cells.

"PA1-450 was used in western blot to test if atrazine induces DNA damage response-related proteins in normal human breast epithelial cells and study its cytotoxicity."

Authors: Huang P, Yang J, Ning J, Wang M, Song Q

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2015

Molecular biology of the cell

#### Role for casein kinase 1 in the phosphorylation of Claspin on critical residues necessary for the activation of Chk1.

"PA1-450 was used in western blot to study the role of casein kinase 1 in checkpoint responses to stalled DNA replication forks"

Authors: Meng Z, Capalbo L, Glover DM, Dunphy WG

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2011

[View more WB references on thermofisher.com](#)

### Immunoprecipitation (2)

Blood

#### ATR-dependent phosphorylation of FANCA on serine 1449 after DNA damage is important for FA pathway function.

"PA1-450 was used in immunoprecipitation to study the role of FANCA phosphorylation in Fanconi anemia."

Authors: Collins NB, Wilson JB, Bush T, Thomashevski A, Roberts KJ, Jones NJ, Kupfer GM

**Species**  
Human  
Not Applicable

**Dilution**  
Not Cited  
Not Cited

**Year**  
2009

The EMBO journal

#### ATR functions as a gene dosage-dependent tumor suppressor on a mismatch repair-deficient background.

"PA1-450 was used in immunoprecipitation to study the interaction between MMR proteins and ATR during the cellular response to genotoxic stress."

Authors: Fang Y, Tsao CC, Goodman BK, Furumai R, Tirado CA, Abraham RT, Wang XF

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2004

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