

## Product datasheet for **TA319394**

### ATR Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA: 1:15,000 - 1:70,000, WB: 1:1,000 - 1:5,000
Reactivity:	Human, Mouse, Monkey, Dog, Xenopus, Rat, Fish
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of human ATR protein.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	ATR serine/threonine kinase
Database Link:	<a href="#">NP_001175</a> <a href="#">Entrez Gene 245000 Mouse</a> <a href="#">Entrez Gene 685055 Rat</a> <a href="#">Entrez Gene 100856315 Dog</a> <a href="#">Entrez Gene 714443 Monkey</a> <a href="#">Entrez Gene 545 Human</a> <a href="#">Q13535</a>
Synonyms:	FCTCS; FRP1; MEC1; SCKL; SCKL1



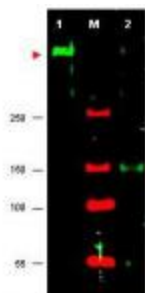
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**Note:** Ataxia Telangiectasia Mutated (ATM) and Rad 3-related protein (ATR) is a phosphatidylinositol kinase (PK)-related kinase which functions in response to DNA damage and repair as well as at DNA replication checkpoints during the cell cycle. ATR 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 is a member of the DNA-PK kinase family and is closely related to ATM and DNA-PK for which DNA stimulates the observed kinase activity. Chromosomal remodeling proteins have also been reported to associate with ATR complexes, including histone deacetylases (HDAC1, HDAC2 and CHD4). ATR is known to phosphorylate BRCA1, CHEK1, MCM2, RAD17, RPA2, SMC1 and TP53/p53 which collectively inhibit DNA replication and mitosis and promote DNA repair, recombination and apoptosis. ATR is a nuclear protein, but can also be found in PML nuclear bodies in certain cell types. ATR is recruited to chromatin during S-phase and redistributes to discrete nuclear foci upon DNA damage, hypoxia or replication fork stalling.

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Cell cycle, p53 signaling pathway

### Product images:



Western blot using anti-ATR antibody shows detection of ATR in HeLa cell nuclear extract (lane 1). Lane 2 shows negligible staining after pre-incubation of antibody with the immunizing peptide (50  $\mu$ g peptide for 1 h at room temperature followed by centrifugation). A 4-8% gradient gel was used for separation. Goat serum was used at 5% for blocking. The arrowhead corresponds to 301 kDa ATR when compared to MW markers (Lane M). The primary antibody was used at a 1:1,400 dilution.