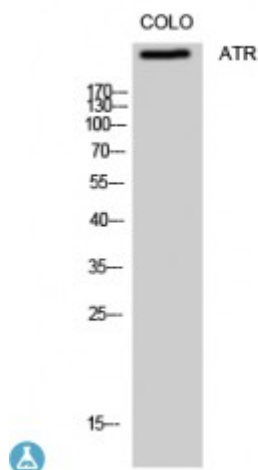


Anti-ATR antibody



Description	Rabbit polyclonal to ATR.
Model	STJ91781
Host	Rabbit
Reactivity	Human
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human ATR around the non-phosphorylation site of S428.
Immunogen Region	370-450 aa
Gene ID	545
Gene Symbol	ATR
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:40000
Specificity	ATR Polyclonal Antibody detects endogenous levels of ATR protein.
Tissue Specificity	Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Serine/threonine-protein kinase ATR Ataxia telangiectasia and Rad3-related protein FRAP-related protein 1
Molecular Weight	300 kDa

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:882OMIM:210600
Alternative Names	Serine/threonine-protein kinase ATR Ataxia telangiectasia and Rad3-related protein FRAP-related protein 1
Function	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.
Cellular Localization	Nucleus Nucleus, PML body Chromosome. 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.
Post-translational Modifications	Phosphorylated; autophosphorylates in vitro.