

Rabbit ATR Polyclonal Antibody | anti-ATR antibody

Phospho-ATR (Thr1989) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329478	Rabbit	Human, Mouse Predicted Reactivity: Bovine (91%), Sheep (91%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

ATR; Polyclonal Antibody; Phospho-ATR (Thr1989) Antibody; Ataxia telangiectasia and Rad3 related; Ataxia telangiectasia and Rad3-related protein; ATR_HUMAN; FCTCS; FRAP Related Protein 1; FRAP-related protein 1; FRP1; MEC1; MEC1 mitosis entry checkpoint 1 homolog; Protein kinase ATR; RAC3; Rad3 related protein; SCKL; SCKL1; Serine/threonine protein kinase ATR; Serine/threonine-protein kinase ATR; anti-ATR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse Predicted Reactivity: Bovine (91%), Sheep (91%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ATR (Thr1989) Antibody detects endogenous levels of ATR only when phosphorylated at Thr1989. Tissue Specificity: Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ATR antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATR around the phosphorylation site of Thr1989.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated; autophosphorylates in vitro.
Subunit Structure	Interacts with ATRIP; forming a heterodimer with ATRIP. Binds to DNA, and to UV-damaged DNA with higher affinity. Interacts with RAD17, MSH2 and HDAC2. Present in a complex containing ATRIP and RPA-coated single-stranded DNA. Present in a complex containing CHD4 and HDAC2. Interacts with BCR-ABL after genotoxic stress. Interacts with EEF1E1. This interaction is enhanced by UV irradiation. Interacts with CLSPN and CEP164. Interacts with TEO2 and TTI1.
Similarity	Belongs to the PI3/PI4-kinase family. ATM subfamily.
Subcellular Location	Nucleus. Nucleus>PML body. Chromosome. Note: 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.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from HeLa , using Phospho-ATR (Thr1989) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.



WB (Western Blot)

Western blot analysis of extracts from LPS treated RAW264.7 cells, using Phospho-ATR (Thr1989) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ATR antibody

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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	157266317
NCBI GeneID	545
NCBI Accession #	NP_001175.2
NCBI GenBank Nucleotide #	NM_001184.3
UniProt Accession #	Q13535; Q59HB2; Q7KYL3; Q93051; Q9BXX4
Molecular Weight	301,367 Da
NCBI Official Full Name	serine/threonine-protein kinase ATR
NCBI Official Synonym Full Names	ataxia telangiectasia and Rad3 related
NCBI Official Symbol	ATR
NCBI Official Synonym Symbols	FRP1; MEC1; SCKL; FCTCS; SCKL1
NCBI Protein Information	serine/threonine-protein kinase ATR; Rad3 related protein; FRAP-related protein 1; FRAP-related protein-1; MEC1, mitosis entry checkpoint 1, homolog; ataxia telangiectasia and Rad3-related protein
UniProt Protein Name	Serine/threonine-protein kinase ATR
UniProt Gene Name	ATR
UniProt Synonym Gene Names	FRP1
UniProt Entry Name	ATR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

