



Datasheet for ABIN233834
anti-ATR antibody (Internal Region)



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1 Image

Overview

Quantity:	100 µg
Target:	ATR
Binding Specificity:	Internal Region
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATR antibody is un-conjugated
Application:	ELISA, Western Blotting (WB)

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an of human ATR protein.
Isotype:	IgG
Cross-Reactivity:	Mouse (Murine), Rat (Rattus), Monkey, Dog (Canine), Fish, Xenopus laevis
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	ATR
Alternative Name:	ATR (ATR Products)
Background:	Ataxia Telangiectasia Mutated (ATM) and Rad 3-related protein (ATR) is a phosphatidyl-inositol

Target Details

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.

Synonyms: ACTR antibody, AIB1 antibody, amplified in breast cancer 1 antibody, Ataxia Telangiectasia and Rad3 Related antibody, CAGH16 antibody, CBP interacting protein antibody, CTG26 antibody, FRAP Related Protein 1 antibody

Gene ID: 545, 157266317

UniProt: [Q13535](#)

Pathways: [Positive Regulation of Response to DNA Damage Stimulus](#)

Application Details

Application Notes: This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 301 kDa in size corresponding to ATR by western blotting in the appropriate cell lysate or extract. Lysates from HeLa, U2OS, RAW264.7 or HEK293 cells are suggested for western blotting. ATR is ubiquitously expressed, with highest expression levels in the testes. Note that isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.

Restrictions: For Research Use only

Handling

Format: Liquid

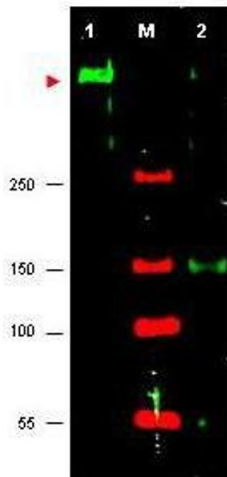
Concentration: 1.28 mg/mL

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

Images



Western Blotting

Image 1. 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 µg 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.