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Datasheet for ABIN401401

anti-ATR antibody (Internal Region)

1 Image

Overview

Quantity:	0.1 mg
Target:	ATR
Binding Specificity:	Internal Region
Reactivity:	Human, Mouse, Monkey, Rat, Xenopus laevis, Dog, Fish
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATR antibody is un-conjugated
Application:	Western Blotting (WB), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	Synthetic peptide corresponding to an internal region of human ATR protein
Isotype:	IgG
Specificity:	This antibody is specific for ATR protein.
Cross-Reactivity (Details):	Species reactivity (expected): Mouse, Rat, Monkey, Canine, Fish, Xenopus. Species reactivity (tested): Human.
Purification:	Affinity chromatography

Target Details

Target:	ATR
Alternative Name:	ATR / FRP1 (ATR Products)

Target Details

Background: 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 DNAPK 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 Sphase and redistributes to discrete nuclear foci upon DNA damage, hypoxia or replication fork stalling. Synonyms: Ataxia telangiectasia and Rad3-related protein, FRAP-related protein 1, Serine/threonine-protein kinase ATR

Gene ID: 545

NCBI Accession: [NP_001175](#)

UniProt: [Q13535](#)

Pathways: [p53 Signaling](#), [Apoptosis](#), [DNA Damage Repair](#), [Positive Regulation of Response to DNA Damage Stimulus](#)

Application Details

Application Notes: ELISA: 1/15,000 - 1/70,000. Western Blot: 1/1,000 - 1/5,000.
Other applications not tested.
Optimal dilutions are dependent on conditions and should be determined by the user.

Restrictions: For Research Use only

Handling

Concentration: 1.28 mg/mL (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01 % (w/v) Sodium Azide

Preservative: Sodium azide

Precaution of Use: This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: -20 °C

Images

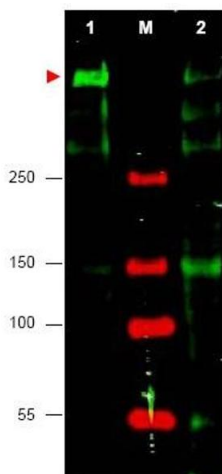


Image 1.