

ARG24196 anti-ATR Phospho (Thr1989) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATR Phospho (Thr1989)
Tested Reactivity	Hu, Ms
Predict Reactivity	Bov, Sheep
Tested Application	ICC/IF, WB
Specificity	Phospho-ATR (Thr1989) Antibody detects endogenous levels of ATR only when phosphorylated at Thr1989.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATR
Species	Human
Immunogen	A synthesized peptide derived from human ATR around the phosphorylation site of Thr1989.
Conjugation	Un-conjugated
Alternate Names	FRP1; SCKL; FCTCS; FRAP-related protein 1; Serine/threonine-protein kinase ATR; EC 2.7.11.1; MEC1; SCKL1; Ataxia telangiectasia and Rad3-related protein

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100 - 1:500
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	300 kDa	

Properties

Form	Liquid
Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Purification Note	150mM NaCl, pH 7.4, 0.02% sodium azide and 50% Glycerol
Purity	0.02% Sodium azide
Buffer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated

freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ATR
Gene Full Name	ATR serine/threonine kinase
Background	The protein encoded by this gene belongs the PI3/PI4-kinase family, and is most closely related to ATM, a protein kinase encoded by the gene mutated in ataxia telangiectasia. This protein and ATM share similarity with Schizosaccharomyces pombe rad3, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This kinase has been shown to phosphorylate checkpoint kinase CHK1, checkpoint proteins RAD17, and RAD9, as well as tumor suppressor protein BRCA1. Mutations of this gene are associated with Seckel syndrome. An alternatively spliced transcript variant of this gene has been reported, however, its full length nature is not known. Transcript variants utilizing alternative polyA sites exist. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	301 kDa
PTM	Phosphorylated; autophosphorylates in vitro. [UniProt]