ARG54457
anti-ATR antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ATR
Tested Reactivity	Hu, Ms
Tested Application	WB
Specificity	This antibody reacts with human and mouse. Antibody is affinity purified.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ATR
Species	Human
Immunogen	Synthetic peptide representing a portion of the protein encoded within exon 5 (LocusLink ID 545).
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 Note	Western blot: 0.033 - 0.067 ug/ml. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Buffer	Tris-citrate/phosphate (pH 7-8) and 0.1% Sodium azide
Preservative	0.1% Sodium azide
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

Database links	GeneID: 545 Human Swiss-port # Q13535 Human
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]
Research Area	Cancer antibody; Gene Regulation antibody
Calculated Mw	301 kDa
PTM	Phosphorylated; autophosphorylates in vitro.