Best Tools for immunology Research

ATR (Phospho Thr1989) rabbit pAb

Catalog No :	YP1269
Reactivity :	Human;Rat;Mouse;
Applications :	WB
Target :	ATR
Fields :	>>Fanconi anemia pathway;>>Cell cycle;>>p53 signaling pathway;>>Cellular senescence;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Human immunodeficiency virus 1 infection
Gene Name :	ATR FRP1
Protein Name :	ATR (Thr1989)
Human Gene Id :	545
Human Swiss Prot No :	Q13535
Mouse Swiss Prot No :	Q9JKK8
Immunogen :	Synthesized phosho peptide around human ATR (Thr1989)
Specificity :	This antibody detects endogenous levels of Human ATR (phospho-Thr1989)
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:1000-2000
Purification :	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 300kD

Cell Pathway : Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;p53;

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 : catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Manganese.,disease:Defects in ATR are a cause of Seckel syndrome type 1 (SCKL1) [MIM:210600]. SCKL1 is a rare autosomal recessive disorder characterized by growth retardation, microcephaly with mental retardation, and a characteristic 'bird-headed' facial appearance.,enzyme regulation:Activated by DNA and inhibited by BCR-ABL oncogene. Slightly activated by ATRIP. Inhibited by caffeine, wortmannin and LY294002.,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 TP53/p53, which collectively inhibit DNA replication and mitosis and promote DN

Subcellular Location : Nucleus . Chromosome . 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.

Expression : Ubiquitous, with highest expression in testis. Isoform 2 is found in pancreas, placenta and liver but not in heart, testis and ovary.

Products Images