

## Serine/threonine-protein kinase ATR

Catalog No: #AP79088

Package Size: #AP79088-1 50ug #AP79088-2 100ug #AP79088-3 1mg

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## Description

Product Name	Serine/threonine-protein kinase ATR
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% by SDS-PAGE
Species Reactivity	Mouse
Immunogen Description	2313-2558AA
Other Names	Kiaa4069, Ataxia telangiectasia and Rad3-related protein
Accession No.	Q9JJK8 Gene name: Atr
Uniprot	Q9JJK8
Calculated MW	27.06
Tag Info	His
Formulation	50mM NaH <sub>2</sub> PO <sub>4</sub> , 500mM NaCl Buffer with 500mM Imidazole, 10% glycerol (PH8.0)
Storage	Store at -20C. (Avoid repeated freezing and thawing.) Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

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 (By similarity). Essential for preventing the occurrence of DNA damage during early embryogenesis.

## References

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Note: This product is for in vitro research use only