SignalChem
Specialists in Signaling Proteins
1-866-9 KINASE (54-6273)

Catalog #	Aliquot Size
A27-35G-20	20 µg
A27-35G-50	50 µg

ATR Protein

Recombinant human protein expressed in Sf9 cells

Catalog # A27-35G
Lot # J533-2

Product Description

Recombinant human ATR (2245-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. This gene accession number is NM_001184.

Gene Aliases

FRP1, MEC1, SCKL, SCKL1

Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

Storage and Stability

Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

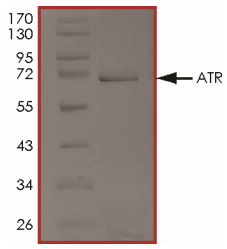
Scientific Background

ATR belongs to the PI3/PI4-kinase family, and is most closely related to ATM, a protein kinase which 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. ATR is shown to phosphorylate checkpoint kinase CHK1, checkpoint proteins RAD17, and RAD9, as well as tumor suppressor protein BRCA1. ATR is an essential regulator of genomic integrity, controls and coordinates DNA-replication origin firing, replication-fork stability, cell cycle checkpoints, and DNA repair (1). ATR/ATM-dependent phosphorylation of RAD17 is a critical early event during checkpoint signaling in DNA-damaged cells (2).

References

1. Tanaka, A.et.al: Germline mutation in ATR in autosomal-dominant oropharyngeal cancer syndrome. Am. J. Hum. Genet. 90: 511-517, 2012.
2. Bao, S. et.al: ATR/ATM-mediated phosphorylation of human Rad17 is required for genotoxic stress responses. Nature 411: 969-974, 2001.

Purity



The purity of ATR was determined to be **>85%** by densitometry. Approx. MW **70 kDa**.

ATR Protein

Recombinant human protein expressed in Sf9 cells

Catalog #	A27-35G
Lot #	J533-2
Purity	>85%
Concentration	0.05 µg/µl
Stability	1yr at –70°C from date of shipment
Storage & Shipping	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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