

#3522 Store at -20°C

Phospho-PNK1 (Ser114/Thr118) Antibody



Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	59	Rabbit	#Q96T60	11284

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Phospho-PNK1 (Ser114/Thr118) Antibody detects endogenous levels of PNK1 only when phosphorylated on Ser114 and Thr118.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser114 and Thr118 of human PNK1. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>PNK (polynucleotide kinase) is a DNA repair enzyme that participates in single strand break repair and non-homologous end rejoining (NHEJ) for double strand breaks. PNK possesses a 5'-DNA kinase activity and a 3'-DNA phosphatase activity (1,2). It has three domains, a C-terminal kinase domain, a central phosphatase domain, and an N-terminal forkhead associated (FHA) domain that is responsible for protein-protein interactions. Reduction in expression of PNK by RNAi sensitizes cells to ionizing radiation and topoisomerase I inhibitors (3)</p> <p>Phosphorylation of PNK1 at Ser114/ Thr118 was independently identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's MS/MS platform for phosphorylation site discovery. Phosphorylation of PNK1 at Ser114/ Thr118 was observed in extracts of various cell lines following UV treatment. For additional information please visit PhosphoSitePlus®, CST's modification site knowledgebase, at www.phosphosite.org.</p>	
Background References	<ol style="list-style-type: none"> 1. Jilani, A. et al. (1999) <i>J Biol Chem</i> 274, 24176-86. 2. Dobson, C.J. and Allinson, S.L. (2006) <i>Nucleic Acids Res</i> 34, 2230-7. 3. Bernstein, N.K. et al. (2008) <i>Anticancer Agents Med Chem</i> 8, 358-67. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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