

**Phospho-CDK Substrate [pTPXK] (D9V5N)
Rabbit mAb****Orders:** 877-616-CELL (2355)
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:
W, IP	All	Endogenous	Rabbit IgG

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:100

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-CDK Substrate [pTPXK] (D9V5N) Rabbit mAb recognizes endogenous levels of proteins that are phosphorylated at threonine within the context of a TPXK motif. The antibody does not cross-react with non-phosphorylated proteins or phospho-threonine in a different context.
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide library containing the phospho-TPXK motif.
Background	Cyclin-dependent kinases (CDKs) are a family of Ser/Thr kinases that regulate cell-cycle transition through their association and subsequent phosphorylation of substrate proteins in a proline-directed fashion. CDKs phosphorylate a serine or threonine residue within the (S/T)PX(R/K) consensus sequence (1-5). Cell Signaling Technology has developed antibodies to phosphorylated proline-rich motifs for broad-based discovery applications. The TPXK motif is targeted for phosphorylation by CDKs 1, 2, 4, 5, and 6 (1-5).
Background References	<ol style="list-style-type: none"> 1. Songyang, Z. et al. (1996) <i>Mol Cell Biol</i> 16, 6486-93. 2. Holmes, J.K. and Solomon, M.J. (1996) <i>J Biol Chem</i> 271, 25240-6. 3. Endicott, J.A. et al. (1999) <i>Curr Opin Struct Biol</i> 9, 738-44. 4. Songyang, Z. et al. (1994) <i>Curr Biol</i> 4, 973-82. 5. Kitagawa, M. et al. (1996) <i>EMBO J</i> 15, 7060-9.

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	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	All: All Species Expected
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