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Product datasheet for TA389102

Phospho-CDK1 Mouse Antibody [Clone ID: M231]

Product data:

Product Type:	Primary Antibodies
Clone Name:	M231
Applications:	WB
Recommended Dilution:	**WB**: 1:250
Reactivity:	Human, Rat, Mouse
Host:	Mouse
Isotype:	IgG1
Immunogen:	Clone M231 was generated from a phospho-Cdk1 (Tyr-15) synthetic peptide (coupled to carrier protein) corresponding to amino acids surrounding Tyr-15 in human Cdk1. This sequence is conserved in rat and mouse Cdk1, and is highly conserved in other Cdks, including Cdk2, Cdk3, Cdk5, and Cdk6.
Specificity:	The antibody detects a 34 kDa* band corresponding to Cdk1 on SDS-PAGE immunoblots of human SYF and HeLa cells, and this band is removed after alkaline phosphatase treatment. The antibody may also detect Tyr-15 phosphorylation in Cdk2, Cdk3, Cdk5, and Cdk6.
Formulation:	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Concentration:	lot specific
Purification:	Protein A Purified
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	34
Database Link:	P06493

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Background: Cyclin-dependent kinases (Cdks) are a family of serine/threonine kinases that require association with regulatory subunits known as cyclins for activation. In addition, post-translational phosphorylation and dephosphorylation events regulate Cdk activity. Phosphorylation of Thr-160 in the T loop by Cdk-activating kinase (CAK) is an obligatory step in kinase activation. By contrast, phosphorylation of the Thr-14 and Tyr-15 residues by the Wee1 family of dual specificity kinases is inhibitory for the Cdks, and dephosphorylation of these residues by the Cdc25 family of phosphatases coincides with Cdk activation. Alternatively, Cdk5 appears to require different mechanisms for activation. This Cdk is activated through association with specific activators, including p35, p39, and p67. Cdk5 is primarily activated in neuronal cells, and only c-Abl kinase, rather than Wee family members, have been shown to phosphorylate Tyr-15 to regulate its activity.

Note: Protein G purified tissue culture supernatant.