

Technical Data Sheet

Purified Mouse Anti-Cdk1

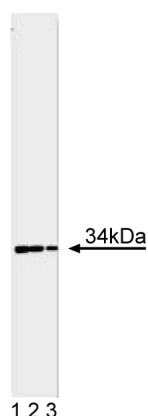
Product Information

Material Number:	610037
Alternate Name:	Cdc2, p34
Size:	50 µg
Concentration:	250 µg/ml
Clone:	1/Cdk1/Cdc2
Immunogen:	Human p34 [cdc2] aa. 283-297
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	34 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

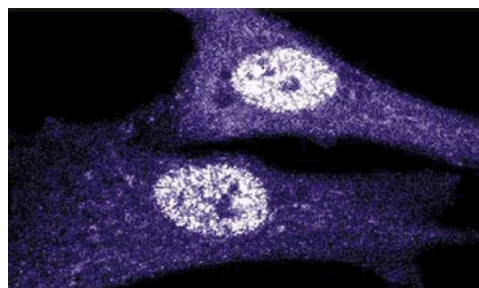
Description

Cdk1, also known as p34 [cdc2], is a ubiquitously expressed serine/threonine protein kinase. Cdk1/cdc2 has been identified as the catalytic subunit of the maturation-promoting factor (MPF), while cyclin B acts as the regulatory subunit. The binding of these two subunits is critical to the transition into M-phase of the mammalian cell cycle, and this factor's role is regulated by a series of phosphorylations and dephosphorylations. After binding to cyclin B, cdk1/cdc2 is phosphorylated on Thr-14, by Myt1, and Tyr-15, by wee1 or mik1, yielding an inactive pre-MPF complex. Phosphorylation of cdk1/cdc2 on Thr-161 is performed by a cdk7/cyclin H complex and is necessary for activation of the cdc2 complex. Dephosphorylation of Thr-14 and Tyr-15 by CDC25 occurs at the prophase/metaphase transition and completes activation of the cdc2/cyclin B complex, initiating the cell's entry into mitosis.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of Cdk1 on a HeLa lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of the anti- Cdk1 antibody.



Immunofluorescence staining of human fibroblasts.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunoprecipitation	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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