Technical Data Sheet

Purified Mouse Anti-Cyclin D3

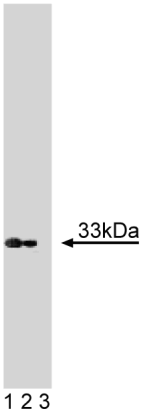
Product Information

Material Number:	**610280**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	1/Cyclin D3
Immunogen:	Human Cyclin D3 aa. 127-292
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Mouse Tested in Development: Human, Rat, Dog
Target MW:	33 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

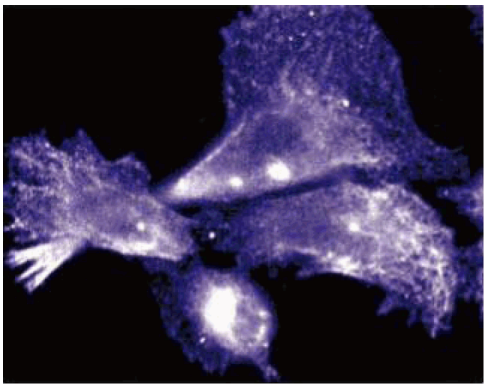
Description

Several classes of cyclins (A-E) have been described. These proteins act as regulatory subunits for cyclin-dependent kinases (cdks). The synthesis and degradation of cyclins is tightly controlled in a cell cycle specific manner. There are at least 3 different D-type cyclins whose relative levels vary among cell types. Cyclin D3 is known to associate with Cdk5 and weakly with Cdk2. Cdk4 is preferentially bound by Cyclin D1. However, in T cells which do not express Cyclin D1, Cdk4 associates with Cyclins D2 and D3. While bound to cdks, the D-type cyclins also associate with the polymerase-δ subunit, PCNA. Cyclin D3 has also been shown to bind pRb *in vitro*. This suggests that pRb may be an *in vivo* substrate of D-type cyclins.

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 Cyclin D3 on a RSV-3T3 lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the Cyclin D3 antibody.*



Immunofluorescent staining of Human Endothelial cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

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Immunohistochemistry	Tested During Development
Immunoprecipitation	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
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/pharmingen/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

Bagui TK, Jackson RJ, Agrawal D, Pledger WJ. Analysis of cyclin D3-cdk4 complexes in fibroblasts expressing and lacking p27(kip1) and p21(cip1). *Mol Cell Biol.* 2000; 20(23):8748-8757.(Clone-specific: Immunoprecipitation, Western blot)

Haller K, Wu Y, Derow E, Schmitt I, Jeang KT, Grassmann R. Physical interaction of human T-cell leukemia virus type 1 Tax with cyclin-dependent kinase 4 stimulates the phosphorylation of retinoblastoma protein. *Mol Cell Biol.* 2002; 22(10):3327-3338.(Clone-specific: Western blot)

Motokura T, Keyomarsi K, Kronenberg HM, Arnold A. Cloning and characterization of human cyclin D3, a cDNA closely related in sequence to the PRAD1/cyclin D1 proto-oncogene. *J Biol Chem.* 1992; 267(28):20412-20415.(Biology)

Saitoh H, Pizzi MD, Wang J. Perturbation of SUMOlation enzyme Ubc9 by distinct domain within nucleoporin RanBP2/Nup358. *J Biol Chem.* 2002; 277(7):4755-4763.(Clone-specific: Immunofluorescence)

Xiong Y, Menninger J, Beach D, Ward DC. Molecular cloning and chromosomal mapping of CCND genes encoding human D-type cyclins. *Genomics.* 1992; 13(3):575-584.(Biology)