Technical Data Sheet

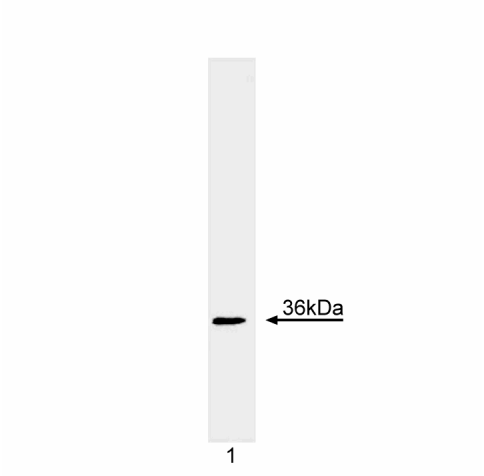
Purified Mouse Anti-Human Cyclin D1

Product Information

Material Number:	**556470**
Size:	100 µg
Concentration:	0.5 mg/ml
Clone:	DCS-6
Immunogen:	Human Full-length Cyclin D1 Recombinant Protein
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Reported: Mouse, Rat
Target MW:	36 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Cyclins and cyclin-dependent kinases (Cdks) have been shown to be subunits of cell cycle dependent protein kinases that regulate key events during the progression of the cell cycle and are evolutionarily highly conserved. Specific substrates for Cdk/cyclin kinases include nuclear lamins, histones, oncogenes (c-src, c-abl, SV40 large-T), tumor suppressor genes (the retinoblastoma protein [Rb] and p53), nucleolin, RNA polymerase II and others. D-type cyclins are involved in regulating the passage of mammalian cells through G1. In SDS-PAGE, D-type cyclins migrate at the following molecular weights: cyclin D1 (36 kDa), cyclin D2 (35 kDa), and cyclin D3 [31 and 34 kDa (doublet)]. Rodent cyclin D1 homologues (Cyl1) have been reported to typically migrate as a 36 kDa doublet. The mouse anti-human cyclin D1 antibody (clone DCS-6) recognizes human cyclin D1 (36 kDa) and has been reported to crossreact with rat and mouse cyclin D1 homologues (Cyl1). It does not crossreact with human cyclins D2 and D3.



Western blot analysis of Cyclin D1. *MCF7 cell lysates (Human breast adenocarcinoma; ATCC HTB-22) was probed with the mouse anti-human Cyclin D1 antibody (clone DCS-6) at 1-2 µg/mL (Lane 1). Cyclin D1 is identified as a band of ~36 kDa.*

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-frozen	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Reported
Immunoprecipitation	Reported
Intracellular staining (flow cytometry)	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Catalog Number	Name	Size	Clone
611548	MCF7 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
556881	FITC Mouse Anti-Human Cyclin D1 Set	100 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Darzynkiewicz Z, Gong J, Juan G, Ardelt B, Traganos F. Cytometry of cyclin proteins. *Cytometry.* 1996; 25(1):1-13.(Biology)

de Boer CJ, Schuuring E, Dreef E, et al. Cyclin D1 protein analysis in the diagnosis of mantle cell lymphoma. *Blood.* 1995; 86(7):2715-2723.(Biology: Immunohistochemistry)

Lukas J, Pagano M, Staskova Z, Draetta G, Bartek J. Cyclin D1 protein oscillates and is essential for cell cycle progression in human tumour cell lines. *Oncogene.* 1994; 9(3):707-718.(Immunogen: Immunohistochemistry, Immunoprecipitation, Inhibition, Western blot)

Meyerson M, Harlow E. Identification of G1 kinase activity for cdk6, a novel cyclin D partner. *Mol Cell Biol.* 1994; 14(3):2077-2086.(Biology)