Technical Data Sheet

FITC Mouse Anti-Human Cyclin D1 Antibody Set

Product Information

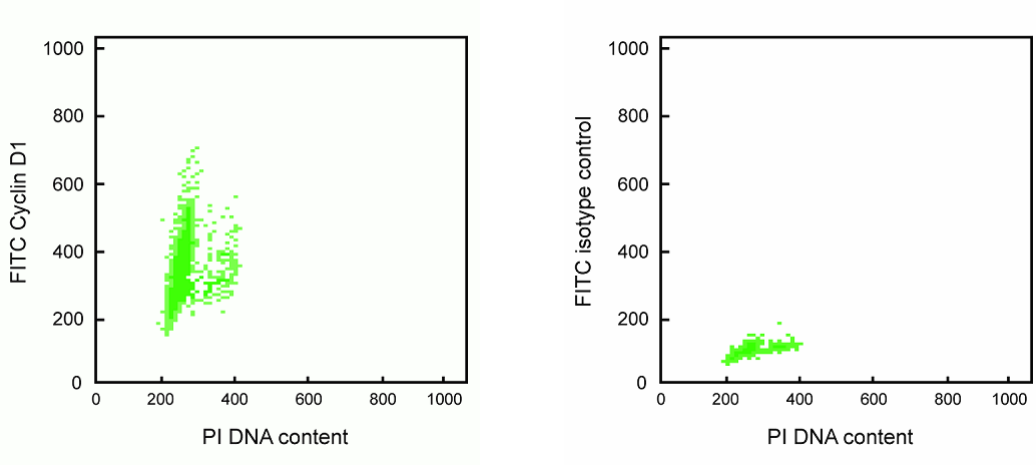
Material Number:	**554109**
Size:	100 tests
Reactivity:	QC Testing: Human
Component:	**51-13864X**
Description:	FITC Mouse Anti-Human Cyclin D1
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	G124-326
Isotype:	Mouse IgG1
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Component:	**51-13854X-2**
Description:	FITC Mouse IgG1, κ Isotype Control
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	MOPC-21
Isotype:	Mouse IgG1, κ
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Cyclins and cyclin-dependent kinases (cdks) are subunits of cell cycle dependent protein kinases that regulate key events during the progression of the cell cycle. 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. Human cyclin D1 migrates at a molecular weight of 36 kDa in SDS/PAGE.

Clone G124-326 recognizes human Cyclin D1. It does not cross-react with human cyclins D2 and D3. Recombinant full-length human Cyclin D1 was used as immunogen. The G124-326 antibody was initially characterized by immunoprecipitation and western blot analysis. In publications it has been used for western blot analysis, flow cytometric analysis, and immunohistochemistry of frozen tissue sections.

Clone MOPC-21 is a mouse IgG1 isotype (negative) control. The MOPC-21 antibody has unknown specificity. The G124-326 and MOPC-21 FITC conjugates are matched in F/P ratios. The optimum F/P ratio was experimentally determined by flow cytometric analysis.



Profile of WI-38 human diploid fibroblasts analyzed on a FACScan™ (BDIS, San Jose, CA). *Cells were stained with anti-human Cyclin D1-FITC (51-13864X) or a mouse IgG1-FITC isotype (negative) control (51-13854X-2). DNA was stained with propidium iodide.*

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Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

Flow cytometry: WI-38 human fibroblasts (ATCC CCL-75) are suggested as a positive control.
For use in Western blot analysis, the Cyclin D1 antibody, clone G124-326, is also available in a purified format (Cat. No. 554180; 0.1 mg and No. 554181; 0.25 mg).

Suggested Companion Products

Catalog Number	Name	Size	Clone
554180	Purified Mouse Anti-Human Cyclin D1	0.1 mg	G124-326
554181	Purified Mouse Anti-Human Cyclin D1	0.25 mg	G124-326

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. This antibody has been optimized and preassayed with its matched isotype control to be used at the recommended volume of 20 ul/test. Titration of the reagents or substituting with other (non-matched) isotype control is NOT recommended.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Darzynkiewicz Z, Gong J, Juan G, Ardelt B, Traganos F. Cytometry of cyclin proteins. *Cytometry.* 1996; 25(1):1-13.(Clone-specific: Flow cytometry)
Gong J, Traganos F, Darzynkiewicz Z. Threshold expression of cyclin E but not D type cyclins characterizes normal and tumour cells entering S phase. *Cell Prolif.* 1995; 28(6):337-346.(Clone-specific: Flow cytometry, Western blot)
Gorospe M, Liu Y, Xu Q, Chrest FJ, Holbrook NJ. Inhibition of G1 cyclin-dependent kinase activity during growth arrest of human breast carcinoma cells by prostaglandin A2. *Mol Cell Biol.* 1996; 16(3):762-770.(Clone-specific: Western blot)
Shapiro GI, Edwards CD, Kobzik L, et al. Reciprocal Rb inactivation and p16INK4 expression in primary lung cancers and cell lines. *Cancer Res.* 1995; 55(3):505-509.(Clone-specific: Immunohistochemistry, Western blot)
Sherr CJ. Mammalian G1 cyclins. *Cell.* 1993; 73(6):1059-1065.(Biology)