

Technical Data Sheet

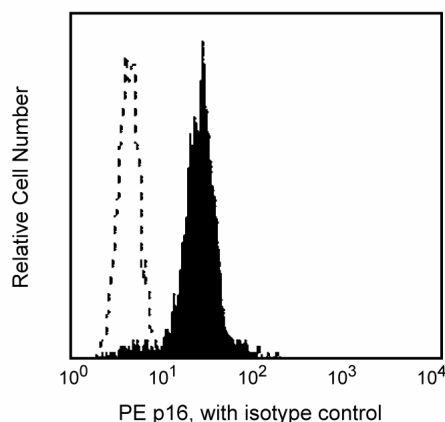
PE Mouse Anti-Human p16 Set

Product Information

Material Number:	556561
Reactivity:	QC Testing: Human
Component:	51-13385X
Description:	PE Mouse Anti-Human p16
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	G175-1239
Immunogen:	Human p16 Recombinant Protein
Isotype:	Mouse IgG1
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Component:	51-13855X-4
Description:	PE 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) form active complexes that regulate key events during the progression of the cell cycle and are evolutionarily highly conserved. The p16 protein has been identified as a specific inhibitor of cdk4 because it blocks cdk4 substrate phosphorylation. p16 inhibits cdk4 dependent phosphorylation of the tumor suppressor retinoblastoma protein (Rb) and Rb related proteins, p107 and p130. The biochemical properties of p16 suggest that it may be a tumor suppressor gene product. Recently a gene cloned from the short arm of human chromosome 9, Multiple Tumor Suppressor 1 (MTS1) has been identified as the gene for p16]. The gene, now also known as the CDKN2 gene, has been found to be mutated in a very high percentage of tumors, including 75% of melanoma cell lines. Alternate names for p16 include p16-INK4, p16-INK4a, ARF, MTS1, CDKN2, CDK4I.



Profile of permeabilized WI-26 VA4 human lung cells, analyzed on a FACScan™ (BDIS, San Jose, CA). Cells were stained with the PE Mouse Anti-Human p16 antibody (clone G175-1239) (shaded) or with a PE Mouse IgG1 isotype (negative) control (unshaded).

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

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Application Notes

Application

Intracellular staining (flow cytometry)

Routinely Tested

Recommended Assay Procedure:

Flow cytometry: Investigators may find a protocol describing nuclear staining to be helpful at

http://www.bdbiosciences.com/support/resources/protocols/detection_ki_67.jsp

Product Notices

1. 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.
2. The contents of the enclosed container(s) is/are covered by United States Patent No.(s) 7,691,632 and 7,425,617 [as well as certain issued foreign patents], under which BD Biosciences has been granted a limited license only. By opening the enclosed container(s), you agree to use the contained reagent(s) for research purposes only and not for any therapeutic or diagnostic applications or commercial drug screening. If you do not agree to be bound by these terms, return the unopened container(s) to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121, for a full refund. Any non-authorized use of the contained reagent(s) may constitute infringement of the Patent(s) for which you may face civil liability.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

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Serrano M, Hannon GJ, Beach. A new regulatory motif in cell-cycle control causing specific inhibition of cyclin D/CDK4. *Nature*. 1993; 366(6456):704-707. (Immunogen)

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Tam SW, Shay JW, Pagano M. Differential expression and cell cycle regulation of the cyclin-dependent kinase 4 inhibitor p16Ink4. *Cancer Res*. 1994; 54(22):5816-5820. (Biology)

Yeager T, Stadler W, Belair C, Puthenveetil J, Olopade O, Reznikoff C. Increased p16 levels correlate with pRb alterations in human urothelial cells. *Cancer Res*. 1995; 55(3):493-497. (Biology)