# Technical Data Sheet Purified Mouse Anti-Human p16

### **Product Information**

Material Number:
Alternate Name:
Size:
<b>Concentration:</b>
Clone:
Immunogen:
Isotype:
Reactivity:
Target MW:
Storage Buffer:

554079
p16-INK4, p16-INK4a, ARF, MTS1, CDKN2, CDK4l
0.1 mg
0.5 mg/ml
G175-1239
Human p16 Recombinant Protein
Mouse IgG1
QC Testing: Human
16 kDa
Aqueous buffered solution containing ≤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.





## Preparation and Storage

Store undiluted at 4°C.

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

## **Application Notes**

ŀ	Application				
	Western blot	Routinely Tested			
	Immunoprecipitation	Tested During Development			

#### **Recommended Assay Procedure:**

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

Endogenous p16 has been detected in several cell lines including Saos-2 human osteosarcoma (ATCC HTB-85), WI-38 human lung fibroblast (ATCC CCL-75), HeLa cervical carcinoma (ATCC CCL-2) and 293 adenovirus immortalized human kidney (ATCC CRL-1573) cells. U-2 OS human osteosarcoma (ATCC HTB-96) and MCF7 human breast carcinoma (ATCC HTB-22) have been reported to have undetectable levels of p16 and are suggested as negative controls.

#### **BD Biosciences**

bdbiosciences.com							
United States 877.232.8995	<b>Canada</b> 888.259.0187	Europe 32.53.720.550	<b>Japan</b> 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995		
For country-spe	cific contact in	formation, visit	bdbiosciences.co	m/how_to_orde	r/		
Conditions: The in of any patents. BD use of our product product or as a con written authorizat For Research Use ( BD, BD Logo and a	Tormation disclose 0 Biosciences will n ts. Purchase does n mponent of anoth tion of Becton Dick Only. Not for use in all other trademark	a nerein is not to b ot be held responsi iot include or carry er product. Any us inson and Compan diagnostic or ther. ks are the property	e construed as a rec ble for patent infrin any right to resell o e of this product otl y is strictly prohibite apeutic procedures. of Becton, Dickinson	ommendation to use gement or other vio ner transfer this produ her than the permitte d. Not for resale. n and Company. ©20	e the above product in violation lations that may occur with the ct either as a stand-alone ed use without the express 08 BD		



## **Suggested Companion Products**

Catalog Number	Name	Size	Clone	
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)	
550834	Purified Mouse Anti-Human p16	1.0 ml	G175-405	
551153	Purified Mouse Anti-Human p16 with Control	50 µg	G175-405	
551154	Purified Mouse Anti-Human p16 with Control	150 µg	G175-405	

#### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

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. 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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

#### References

Kamb A, Gruis NA, Weaver-Feldhaus J, et al. A cell cycle regulator potentially involved in genesis of many tumor types. *Science*. 1994; 264(5157):436-440. (Biology)

Li Y, Nichols MA, Shay JW, Xiong Y. Transcriptional repression of the D-type cyclin-dependent kinase inhibitor p16 by the retinoblastoma susceptibility gene product pRb. *Cancer Res.* 1994; 54(23):6078-6082. (Biology)

Marx J. Link to hereditary melanoma brightens mood for p16 gene. Science. 1994; 265(5177):1364-1365. (Biology)

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)

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. (Biology)

Tam SW, Shay JW, Pagano M. Differential expression and cell cycle regulation of the cyclin-dependent kinase 4 inhibitor p16lnk4. *Cancer Res.* 1994; 54(22):5816-5820. (Biology)

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