# Technical Data Sheet Purified Mouse Anti-Human CD104

Product Information		
Material Number:	555721	
Alternate Name:	Integrin β4 chain	
Size:	0.1 mg	
Concentration:	0.5 mg/ml	
Clone:	450-9D	
Isotype:	Mouse IgG1, $\lambda$	
Reactivity:	QC Testing: Human	
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide	

### Description

Reacts with CD104, integrin  $\beta$ 4 chain, a 205 kDa transmembrane glycoprotein which associates with CD49f (integrin  $\alpha$ 6 chain) to form the  $\alpha$ 6/ $\beta$ 4 (CD49f/CD104) complex. CD104 is expressed on epithelial cells, Schwann cells, and some tumor cells. The CD49f/CD104 complex is located in the hemidesmosomes of the epidermis, suggesting its role in epidermal cell-basement membrane adhesion. The clone 450-9D recognizes the extracellular domain of human CD104 and is able to block the binding of clone 439-9B (another CD104 clone) to A431 cells. 450-9D is effective in flow cytometry and immunohistochemistry on frozen sections.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Profile of A431, an epidermal carcinoma cell line, analyzed by flow cytometry

## **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4° C.

### **Application Notes**

Application							
	Flow cytometry	Routinely Tested					
	Immunohistochemistry-frozen	Tested During Development					

## **Suggested Companion Products**

Catalog Number	Name	Size	Clone
555746	Purified Mouse IgG1, ĸ Isotype Control	0.1 mg	MOPC-21
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

#### **BD Biosciences**

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## **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.

## References

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Jones JC, Kurpakus MA, Cooper HM, Quaranta V. A function for the integrin alpha 6 beta 4 in the hemidesmosome. *Cell Regul.* 1991; 2(6):427-438.(Biology) Kennel SJ, Epler RG, Lankford TK, et al. Second generation monoclonal antibodies to the human integrin alpha 6 beta 4. *Hybridoma.* 1990; 9(3):243-255.(Biology) Sonnenberg A, Calafat J, Janssen H, et al. Integrin alpha 6/beta 4 complex is located in hemidesmosomes, suggesting a major role in epidermal cell-basement membrane adhesion. *J Cell Biol.* 1991; 113(4):907-917.(Biology)

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