

## Technical Data Sheet

PE Rat Anti-Mouse Integrin  $\beta 7$  Chain

## Product Information

Material Number:	557498
Alternate Name:	Integrin $\beta p$
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	M293
Immunogen:	$\alpha$ IEL $\beta 7$ integrin from the C57BL/10 mouse T-cell hybridoma MTC-1
Isotype:	Rat (LOU) IgG2a, $\kappa$
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The M293 antibody reacts with the integrin  $\beta 7$  chain (also known as integrin  $\beta p$ ), which is found in association with either of two  $\alpha$  chains.  $\alpha 4\beta 7$  (LPAM-1) is expressed on most mature lymphocytes and on small subsets of thymic and bone marrow cells; it interacts with several ligands, including VCAM-1, fibronectin, and MAdCAM-1.  $\alpha$ IEL $\beta 7$  is found primarily on intestinal mucosal and intraepithelial lymphocytes (IEL), and it may be primarily involved in interactions between IEL and epithelia *via* recognition of E-cadherin. The epitope recognized by the mAb M293 has been mapped to the region between amino acids 387 and 542. The M293 antibody exhibits little or no activity in blocking  $\beta 7$  integrin-mediated adhesion.

## Preparation and Storage

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.

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

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553930	PE Rat IgG2a, $\kappa$ Isotype Control	0.1 mg	R35-95

## 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](http://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

Andrew DP, Berlin C, Honda S, et al. Distinct but overlapping epitopes are involved in alpha 4 beta 7-mediated adhesion to vascular cell adhesion molecule-1, mucosal addressin-1, fibronectin, and lymphocyte aggregation. *J Immunol.* 1194; 153(9):3847-3861.(Biology)

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Gabor MJ, Godfrey DI, Scollay R. Recent thymic emigrants are distinct from most medullary thymocytes. *Eur J Immunol.* 1997; 27(8):2010-2050.(Biology)

Kilshaw PJ, Murrant SJ. Expression and regulation of beta 7(beta p) integrins on mouse lymphocytes: relevance to the mucosal immune system. *Eur J Immunol.* 1991; 21(10):2591-2597.(Immunogen)

Wagner N, Löhler J, Kunkel EJ, Ley K, Leung E, Krissansen G, Rajewsky K, Müller W. Critical role for beta7 integrins in formation of the gut-associated lymphoid tissue. *Nature.* 1996 July; 382(6589):366-370.(Biology)

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