

Technical Data Sheet

PE Rat Anti-Mouse CD103

Product Information

Material Number:	561043
Alternate Name:	Integrin α IEL chain
Size:	25 μ g
Concentration:	0.2 mg/ml
Clone:	M290
Immunogen:	Mouse mammary tumor cells
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The M290 antibody reacts with the α chain of α IEL β 7 integrin. CD103 has a unique and fairly restricted tissue distribution. It is expressed on almost all intestinal intraepithelial lymphocytes (IEL), on dendritic epidermal T cells (DEC), on subpopulations of peripheral T cells, and on distinct subsets of fetal, neonatal, and adult thymocytes. E-cadherin is the epithelial-cell ligand for α IEL β 7 integrin. The ordered expression of α IEL during thymocyte development (which occurs under the influence of the thymic epithelium), the high level of expression of α IEL on those peripheral T cells found in epithelial tissues (IEL and DEC), and the expression of CD103 on a subset of CD8+ lymphocytes responding to allogeneic epithelial cells suggest that α IEL β 7 integrin may have a common role in the interactions of T lymphocytes with epithelia during T-cell maturation and effector functions. CD103 is thought to play a role in allograft rejection. The M290 antibody is reported to efficiently inhibit α IEL β 7-mediated adhesion in *in vitro* assays.

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, κ 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 for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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.

References

Feng Y, Wang D, Yuan R, Parker CM, Farber DL, Hadley GA. CD103 expression is required for destruction of pancreatic islet allografts by CD8(+) T cells. *J Exp Med*. 2002; 196(7):877-886. (Biology)

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Karecla PI, Bowden SJ, Green SJ, Kilshaw PJ. Recognition of E-cadherin on epithelial cells by the mucosal T cell integrin alpha M290 beta 7 (alpha E beta 7). *Eur J Immunol*. 1995; 25(3):852-856. (Biology)

Kilshaw PJ, Baker KC. A unique surface antigen on intraepithelial lymphocytes in the mouse. *Immunol Lett*. 1988; 18(2):149-154. (Immunogen)

Kilshaw PJ, Murrant SJ. A new surface antigen on intraepithelial lymphocytes in the intestine. *Eur J Immunol*. 1990; 20(10):2201-2207. (Biology)

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