**Technical Data Sheet**

**APC Rat Anti-Mouse CD103**

### Product Information
- **Material Number:** 562772
- **Alternate Name:** Itgae; Integrin alpha-E; αE; alpha-E1; ITAE; Integrin αEL chain; aM290
- **Size:** 50 µg
- **Concentration:** 0.2 mg/ml
- **Clone:** M290
- **Immunogen:** Mouse Intestinal Epithelial Cells
- **Isotype:** Rat (LOU) IgG2a, κ
- **Reactivity:** QC Testing: Mouse
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

### Description
The M290 antibody specifically binds to CD103, the α chain of αELβ7 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 αELβ7 integrin. The ordered expression of αEL during thymocyte development (which occurs under the influence of the thymic epithelium), the high level of expression of αEL 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 αELβ7 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 αELβ7-mediated adhesion in *in vitro* assays.

### 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 to APC under optimum conditions, and unconjugated antibody and free APC were removed.

### Application Notes
- **Application**
  - Flow cytometry

<table>
<thead>
<tr>
<th>Application</th>
<th>Routinely Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow cytometry</td>
<td>Routinely Tested</td>
</tr>
</tbody>
</table>

### Multicolor Flow Cytometry Analysis
Multicolor flow cytometric analysis of CD103 expression on mouse lymph node cells. Lymph node cells from a C57BL/6 mouse were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with PE Hamster Anti-Mouse CD3e antibody (Cat. No. 553064/553063/561824) and either APC Rat IgG2a, κ Isotype Control (Cat. No. 554690; Left Panel) or with APC Rat Anti-Mouse CD103 antibody (Cat. No. 562772; Right Panel). Two-color dot plots showing the coexpressed levels of CD103 (or Ig Isotype control staining) versus CD3e were derived from gated events with the forward and side light-scatter characteristics of viable leucocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.
### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>553141</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
<td>0.1 mg</td>
<td>2.4G2</td>
</tr>
<tr>
<td>553142</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
<td>0.5 mg</td>
<td>2.4G2</td>
</tr>
<tr>
<td>554690</td>
<td>APC Rat IgG2a x Isotype Control</td>
<td>0.1 mg</td>
<td>R35-95</td>
</tr>
<tr>
<td>553064</td>
<td>PE Hamster Anti-Mouse CD3e</td>
<td>0.2 mg</td>
<td>145-2C11</td>
</tr>
<tr>
<td>553063</td>
<td>PE Hamster Anti-Mouse CD3e</td>
<td>0.1 mg</td>
<td>145-2C11</td>
</tr>
<tr>
<td>561824</td>
<td>PE Hamster Anti-Mouse CD3e</td>
<td>25 µg</td>
<td>145-2C11</td>
</tr>
</tbody>
</table>

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

### References


