**Technical Data Sheet**

**Purified Mouse Anti-Human CD10**

### Product Information

- **Material Number:** 555373
- **Alternate Name:** MME; CALLA; EPN; NEP; neprilysin; SFE; atriopeptidase; enkephalinase
- **Size:** 0.1 mg
- **Concentration:** 0.5 mg/ml
- **Clone:** HI10a
- **Immunogen:** Acute CALLA Leukemia Blast Cells
- **Isotype:** Mouse (BALB/c) IgG1, κ
- **Reactivity:** QC Testing: Human
  - Tested in Development: Rhesus, Cynomolgus, Baboon
- **Workshop:** V CD10.7
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

### Description

The HI10a monoclonal antibody specifically binds to CD10 which is also known as Neutral endopeptidase (NEP), Enkephalinase, Atriopeptidase, and Neprilysin. CD10 is encoded by **MME** (membrane metallo-endopeptidase). CD10 is a 100 kDa type II transmembrane glycoprotein that has neutral endopeptidase activity and is otherwise known as the Common Acute Lymphoblastic Leukemia Antigen (CALLA). CD10 is expressed on a wide variety of normal and neoplastic cell types. Normal cells expressing CD10 include granulocytes, bone marrow stromal cells, a subset of B-cell progenitors, germinal center B cells and fibroblasts. This cell surface metalloendopeptidase inactivates a number of signaling molecules and serves as a major regulator in the nervous, immune and other systems.

### Preparation and Storage

Store undiluted at 4°C.

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

### Application Notes

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

### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>555746</td>
<td>Purified Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-21</td>
</tr>
<tr>
<td>555988</td>
<td>FITC Goat Anti-Mouse IgG/IgM</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
<td>(none)</td>
</tr>
</tbody>
</table>

### Flow Cytometric Analysis

Flow cytometric analysis of CD10 expression on REH cell line. REH cells were stained with either Purified Mouse Anti-Human CD10 (Cat. No. 555373; solid line histogram) or Purified Mouse IgG1, κ Isotype Control (Cat.No. 555746; dashed line histogram), then FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988). Fluorescence histograms depicting CD10 (or Ig isotype control) expression were derived from gated events with the side and forward light-scattering characteristics of viable cells.
Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

References