Species Reactivity: Human
Specificity: Detects human CD81. Stains human CD81 transfectants but not irrelevant transfectants.
Source: Monoclonal Mouse IgG₂B Clone # 454720
Purification: Protein A or G purified from hybridoma culture supernatant
Immunogen: HEK293 human embryonic kidney cell line transfected with human CD81
Accession #: P60033
Formulation: Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Application</th>
<th>Recommended Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
<td>2.5 μg/10⁶ cells</td>
<td>See Below</td>
</tr>
<tr>
<td>CyTOF-ready</td>
<td>Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.</td>
<td></td>
</tr>
</tbody>
</table>

DATA
Flow Cytometry

Detection of CD81 in Human Lymphocytes by Flow Cytometry. Human whole blood lymphocytes were stained with Mouse Anti-Human CD81 Monoclonal Antibody (Catalog # MAB4615, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG F(ab')₂ Secondary Antibody (Catalog # F0102B).

PREPARATION AND STORAGE
Reconstitution: Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.
Stability & Storage:
- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND
CD81, also known as TAPA-1 and TM4SF4, is a widely expressed protein in the tetraspanin family. CD81 is a multifunctional protein that interacts with a variety of other molecules, including tetraspanins, and is important for organization of the plasma membrane into microdomains. CD81 facilitates B cell and T cell activation and is an integrin-binding adhesion molecule. CD81 expression on lymphocytes is altered during infection by hepatitis C virus or HIV-1 and contributes to the pathogenicity of those viruses. Human CD81 shares 92%-93% aa sequence identity with mouse and rat CD81.