Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD49d

Product Information
Material Number: 553153
Alternate Name: Integrin α4 chain
Size: 0.5 mg
Concentration: 1.0 mg/ml
Clone: R1-2
Immunogen: AKR/Cum mouse spontaneous T lymphoma line TK1
Isotype: Rat (F344) IgG2b, κ
Reactivity: QC Testing: Mouse
Storage Buffer: No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

Description
The R1-2 antibody reacts with the integrin α4 chain (CD49d), which is expressed as a heterodimer with either of two β, β1 or β7 (also known as βp). The α4β1 integrin (VLA-4, CD49d/CD29) is expressed on most peripheral lymphocytes, thymocytes, and monocytes; while the α4β7 integrin (LPAM-1) is expressed on peripheral lymphocytes, but on only a small subset of thymocytes. These integrins mediate a variety of cell-cell and cell-matrix interactions, recognizing the ligands VCAM-1 (CD106) and fibronectin. There is evidence that levels of VLA-4 expression regulate the transendothelial migration of T lymphocytes into inflamed tissues. Integrin α4β7 also preferentially binds to the mucosal vascular addressin, MAdCAM-1. The R1-2 antibody blocks some α4 integrin-mediated binding functions. In combination with mAb 9C10 (MFR4.B) (Cat. No. 553313), binding of VLA-4 expressing cells to VCAM-1 can be almost completely inhibited.

Preparation and Storage
Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes
Application
Flow cytometry Routinely Tested
Blocking Reported
Immunoprecipitation Reported
Immunohistochemistry Reported

Suggested Companion Products
<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<td>556968</td>
<td>Purified NA/LE Rat IgG2b, κ Isotype Control</td>
<td>0.5 mg</td>
<td>A95-1</td>
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</tbody>
</table>

Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

References
Holzmann B, Weissman IL. Peyer's patch-specific lymphocyte homing receptors consist of a VLA-4-like alpha chain associated with either of two integrin beta chains, one of which is novel. EMBO J. 1989; 8(6):1735-1741. (Biology: Immunoprecipitation)

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