Technical Data Sheet

Purified Mouse Anti-CD49c

Product Information

Material Number: 611044
Alternate Name: Integrin α3; VLA-3α
Size: 50 µg
Concentration: 250 µg/ml
Clone: 42/CD49c
Immunogen: Mouse VLA-3α aa. 110-325
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Tested in Development: Mouse, Dog
Target MW: 135 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Integrins are a family of dimeric proteins that mediate cell-to-cell and extracellular matrix adhesion. They consist of a large α chain that is non-covalently associated with a smaller β chain which defines the integrin subfamilies. VLA-3 (Very Late Antigen-3), a member of the integrin superfamily, exhibits elevated expression on B lymphocytes, but is also found on monocytes, platelets, and hematopoietic progenitor cells. A heterodimer of α3 (CD49c) and β1 (CD29) subunits, VLA is a receptor for laminin, fibronectin, and collagen. The α3 chain contains a large extracellular domain with three putative metal-binding sequences, a transmembrane domain, and a short cytoplasmic tail. Differing requirements for divalent cations and the influence of RGD peptides results in multiple ligand-binding mechanisms for VLA-3. Although its expression is restricted in normal tissues, VLA-3 is found on a variety of cultured tumor cells. In addition, levels of VLA-3 have been shown to correlate with the degree of invasiveness of malignant melanoma cells. Thus, VLA-3 mediates intercellular adhesion and cell migration in normal and, possibly, cancerous cell types.

Preparation and Storage

Store undiluted at -20° C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.


Immunofluorescence staining of MDCK cells (canine kidney; ATCC CCL-34).
Application Notes

Application

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
</tr>
<tr>
<td>Immunofluorescence</td>
<td>Tested During Development</td>
</tr>
</tbody>
</table>

Recommended Assay Procedure:
Western blot: Please refer to http://wwwbdbiosciencescom/pharmingen/protocols/Western_Blottingshml

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>611466</td>
<td>Rat Kidney Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
</tr>
</tbody>
</table>

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciencescom/pharmingen/protocols for technical protocols.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References