

## Datasheet: MCA1457T

|                      |                               |
|----------------------|-------------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD49f        |
| <b>Specificity:</b>  | CD49f                         |
| <b>Other names:</b>  | INTEGRIN ALPHA 6 CHAIN, VLA-6 |
| <b>Format:</b>       | Purified                      |
| <b>Product Type:</b> | Monoclonal Antibody           |
| <b>Clone:</b>        | 450-30A                       |
| <b>Isotype:</b>      | IgG1                          |
| <b>Quantity:</b>     | 25 µg                         |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                              | Yes | No | Not Determined | Suggested Dilution |
|------------------------------|-----|----|----------------|--------------------|
| Flow Cytometry               | ■   |    |                | 1/10 - 1/50        |
| Immunohistology - Frozen (1) | ■   |    |                | 1/50 - 1/100       |
| Immunohistology - Paraffin   |     | ■  |                |                    |
| ELISA                        |     |    | ■              |                    |
| Immunoprecipitation          |     |    | ■              |                    |
| Western Blotting             | ■   |    |                |                    |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

|                                       |                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Target Species</b>                 | Human                                                                                         |
| <b>Product Form</b>                   | Purified IgG - liquid                                                                         |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| <b>Buffer Solution</b>                | Phosphate buffered saline                                                                     |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide                                                                            |
| <b>Carrier Free</b>                   | Yes                                                                                           |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml                                                                   |

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen</b>                         | alpha 6 beta 4 integrin purified from A431 cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>External Database Links</b>           | <p><b>UniProt:</b><br/> <a href="#">P23229</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">3655</a>   ITGA6   <a href="#">Related reagents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Fusion Partners</b>                   | Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>                       | <p><b>Mouse anti Human CD49f antibody, clone 450-30A</b> recognizes the human VLA-6 cell surface antigen, also known as the alpha 6 integrin and as CD49f.</p> <p>CD49f is expressed by platelets, weakly by monocytes and by a subset of lymphocytes.</p> <p>CD49f is also widely expressed on epithelial tissues.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Flow Cytometry</b>                    | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Histology Positive Control Tissue</b> | Tonsil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>1. Kennel, S.J. <i>et al.</i> (1990) Second generation monoclonal antibodies to the human integrin alpha 6 beta 4. <a href="#">Hybridoma. 9 (3): 243-55.</a></li> <li>2. Maurice, S. <i>et al.</i> (2007) Isolation of progenitor cells from cord blood using adhesion matrices. <a href="#">Cytotechnology. 54: 121-33.</a></li> <li>3. Cavers, M. <i>et al.</i> (2002) Differential expression of beta1 and beta2 integrins and L-selectin on CD4+ and CD8+ T lymphocytes in human blood: comparative analysis between isolated cells, whole blood samples and cryopreserved preparations. <a href="#">Clin Exp Immunol. 127: 60-5.</a></li> <li>4. López, J. <i>et al.</i> (2012) Cancer-initiating cells derived from established cervical cell lines exhibit stem-cell markers and increased radioresistance. <a href="#">BMC Cancer. 12: 48.</a></li> <li>5. Keller, P.J. <i>et al.</i> (2012) Defining the cellular precursors to human breast cancer. <a href="#">Proc Natl Acad Sci U S A. 109: 2772-7.</a></li> <li>6. Kaczmarek, M. <i>et al.</i> (2011) Evaluation of the phenotype pattern of macrophages isolated from malignant and non-malignant pleural effusions. <a href="#">Tumour Biol. 32: 1123-32.</a></li> <li>7. Aldridge, V. <i>et al.</i> (2012) Human mesenchymal stem cells are recruited to injured liver in a β1-integrin and CD44 dependent manner. <a href="#">Hepatology. 56 (3): 1063-73.</a></li> <li>8. Steinberg, F. <i>et al.</i> (2012) SNX17 protects integrins from degradation by sorting between lysosomal and recycling pathways. <a href="#">J Cell Biol. 197 (2): 219-30.</a></li> <li>9. Liu, L. <i>et al.</i> (2003) Priming of eosinophil migration across lung epithelial cell monolayers and upregulation of CD11b/CD18 are elicited by extracellular Ca<sup>2+</sup>. <a href="#">Am J Respir Cell Mol Biol. 28: 713-21.</a></li> <li>10. Goyer, B. <i>et al.</i> (2017) Extracellular matrix and integrin expression profiles in Fuchs endothelial corneal dystrophy cells and tissue model. <a href="#">Tissue Eng Part A. Jul 20 [Epub ahead of print].</a></li> </ol> |
| <b>Storage</b>                           | <p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

microcentrifugation before use.

|                                      |                                                                                                                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shelf Life</b>                    | 18 months from date of despatch.                                                                                                                                                                         |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br>10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                                               |

## Related Products

### Recommended Secondary Antibodies

|                                         |                                                                                                                                                                                                                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>                                                                                                                                                                                    |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®549</a> ,<br><a href="#">DyLight®649</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>                                                                                                                                                                                          |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>                                                                                                                                                                                                         |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Human Anti Mouse IgG1 (HCA036...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

|                                  |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
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