

## Datasheet: MCA1230A647T

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD49d:Alexa Fluor® 647 |
| <b>Specificity:</b>  | CD49d                                 |
| <b>Other names:</b>  | INTEGRIN ALPHA 4 CHAIN, VLA-4         |
| <b>Format:</b>       | ALEXA FLUOR® 647                      |
| <b>Product Type:</b> | Monoclonal Antibody                   |
| <b>Clone:</b>        | PS/2                                  |
| <b>Isotype:</b>      | IgG2b                                 |
| <b>Quantity:</b>     | 25 TESTS/0.25ml                       |

## 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 | ■   |    |                | Neat               |

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.

|                                       |                                                                                                        |                            |                          |
|---------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|
| <b>Target Species</b>                 | Mouse                                                                                                  |                            |                          |
| <b>Species Cross Reactivity</b>       | Reacts with: Human<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. |                            |                          |
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor® 647 - liquid                                                   |                            |                          |
| <b>Max Ex/Em</b>                      | <b>Fluorophore</b>                                                                                     | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                       | Alexa Fluor®647                                                                                        | 650                        | 665                      |
| <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                                                                                     |                            |                          |
|                                       | 1% Bovine Serum Albumin                                                                                |                            |                          |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05 mg/ml                                                                           |                            |                          |
| <b>Immunogen</b>                      | P815 DBA/2 murine mastocytoma cells.                                                                   |                            |                          |

**External Database  
Links**

**UniProt:**

[Q00651](#)   [Related reagents](#)

**Entrez Gene:**

[16401](#)   Itga4   [Related reagents](#)

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**Fusion Partners**

Spleen cells from immunized Fisher rats were fused with SP2/0 mouse myeloma cells

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**Specificity**

**Rat anti Mouse CD49d monoclonal antibody, clone PS/2** recognizes murine alpha 4 integrin (CD49d), a ~150 kDa single pass type I membrane glycoprotein that can associate with either beta 1 integrin (CD29) or beta 7 integrin to form heterodimers CD49d/CD29 (VLA-4) and alpha4/beta7 (LPAM-1) respectively ([Holzmann et al. 1989](#)). CD49d is expressed on most lymphocytes, granulocytes, monocytes and thymocytes. The primary ligands for CD49d are CD106 (VCAM-1), fibronectin and MAdCAM-1 ([Sheppard et al. 1994](#)).

Clone PS/2 has also been reported to block the binding of CD49d to its ligands ([Andrew et al. 1994](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

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**References**

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#### Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

#### Shelf Life

18 months from date of despatch.

#### Acknowledgements

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#### Health And Safety Information

Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

#### Regulatory

For research purposes only

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