

## Datasheet: MCA2027

|                      |                               |
|----------------------|-------------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD49b        |
| <b>Specificity:</b>  | CD49b                         |
| <b>Other names:</b>  | INTEGRIN ALPHA 2 CHAIN, VLA-2 |
| <b>Format:</b>       | Purified                      |
| <b>Product Type:</b> | Monoclonal Antibody           |
| <b>Clone:</b>        | 31H4                          |
| <b>Isotype:</b>      | IgG1                          |
| <b>Quantity:</b>     | 0.2 mg                        |

## 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             | ▪   |    |                | 1/25 - 1/50        |
| Immunohistology - Frozen   |     |    | ▪              |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      | ▪   |    |                | 10ug/ml            |
| Immunoprecipitation        | ▪   |    |                | 25ug/ml - 50ug/ml  |
| 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.

|                                       |                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Target Species</b>                 | Human                                                                                         |
| <b>Species Cross Reactivity</b>       | Does not react with:Rat                                                                       |
| <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>                     | Purified human b1 integrin preparation from HT1080 fibrosarcoma cell extract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>External Database Links</b>       | <p><b>UniProt:</b><br/> <a href="#">P17301</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">3673</a>   ITGA2   <a href="#">Related reagents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Synonyms</b>                      | CD49B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Fusion Partners</b>               | Spleen cells from immunised BALB/c mice were fused with cells of the X63/Ag8.653 mouse myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Specificity</b>                   | <p><b>Mouse anti Human CD49b antibody, clone 31H4</b> recognizes human CD49b also known as integrin alpha-2, VLA-2 subunit alpha or collagen receptor. CD49b is a 1181 amino acid 130 kDa single pass type-1 transmembrane glycoprotein which forms a heterodimer with integrin beta-1.</p> <p>Mouse anti Human CD49b antibody, clone 31H4 has been identified as being capable of immunoprecipitating the integrin a2 subunit from human cell-lines surface labelled with <sup>125</sup>I. It has been confirmed specific to a2 by relative expression of antigen on various cell lines by flow cytometry, and recognition of affinity purified a2b1 in dot blots.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>References</b>                    | <ol style="list-style-type: none"> <li>1. Tanaka, T. <i>et al.</i> (2009) Remodeling of the human endometrial epithelium is regulated by laminin and type IV collagen. <a href="#">Int J Mol Med. 23: 173-80.</a></li> <li>2. Tanaka, T. <i>et al.</i> (2005) Reduced radiosensitivity and increased CD40 expression in cyclophosphamide-resistant subclones established from human cervical squamous cell carcinoma cells. <a href="#">Oncol Rep. 14: 941-8.</a></li> <li>3. Tanaka, T. <i>et al.</i> (2010) Establishment and characterization of novel human uterine leiomyosarcoma cell lines <a href="#">Int J Oncol. 37: 125-31.</a></li> <li>4. Tanaka, T. <i>et al.</i> (2012) Differential sensitivity to paclitaxel-induced apoptosis and growth suppression in paclitaxel-resistant cell lines established from HEC-1 human endometrial adenocarcinoma cells. <a href="#">Int J Oncol. 41: 1837-44.</a></li> <li>5. Tanaka, T. <i>et al.</i> (2008) Autocrine/paracrine regulation of human endometrial stromal remodeling by laminin and type IV collagen. <a href="#">Int J Mol Med. 22: 581-7.</a></li> <li>6. Tanaka, T. <i>et al.</i> (2006) Optimal combination chemotherapy and chemoradiotherapy with etoposide for advanced cervical squamous cancer cells in vitro. <a href="#">Oncol Rep. 15: 939-47.</a></li> <li>7. Tanaka, T. <i>et al.</i> (2012) Impaired death-associated protein kinase-mediated survival signals in 5-fluorouracil-resistant human endometrial adenocarcinoma cells. <a href="#">Oncol Rep. 28: 330-6.</a></li> <li>8. Tanaka, T. <i>et al.</i> (2008) Experimental characterization of recurrent ovarian immature teratoma cells after optimal surgery. <a href="#">Oncol Rep. 20: 13-23.</a></li> </ol> |
| <b>Storage</b>                       | <p>Store at +4°C for one month or at -20°C for longer.</p> <p>This product should be stored undiluted.<br/> 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 microcentrifugation before use.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Related Products

### Recommended Secondary Antibodies

|                                         |                                                                                                                                                                                                                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>                                                                                                                                                                                    |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>                                                                                                                                                                                                         |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>                                                                                                                                                                                          |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</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> |

### Recommended Negative Controls

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

|                                  |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
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