



## Datasheet: MCA2734

|                      |                        |
|----------------------|------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN MMP-3 |
| <b>Specificity:</b>  | MMP-3                  |
| <b>Other names:</b>  | STROMELYSIN-1          |
| <b>Format:</b>       | Purified               |
| <b>Product Type:</b> | Monoclonal Antibody    |
| <b>Clone:</b>        | 1B4                    |
| <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                 |     |    | ■              |                    |
| Immunohistology - Frozen       |     |    | ■              |                    |
| Immunohistology - Paraffin (1) | ■   |    |                | 1/10 - 1/40        |
| ELISA                          | ■   |    |                |                    |
| Immunoprecipitation            |     |    | ■              |                    |
| Western Blotting               | ■   |    |                |                    |

Where this product 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 product for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

|                                       |   |
|---------------------------------------|---|
| <b>Target Species</b>                 | Human   |
| <b>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G |
| <b>Buffer Solution</b>                | Phosphate buffered saline                                     |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide (NaN <sub>3</sub> )                        |
| <b>Carrier Free</b>                   | Yes   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0mg/ml                                    |

|  |  |
|--|--|
| <b>Immunogen</b>                         | Ovalbumin conjugated synthetic peptide corresponding to a region within the C-terminus of human MMP-3.   |
| <b>External Database Links</b>           | <p><b>UniProt:</b><br/> <a href="#">P08254</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">4314</a>    MMP3    <a href="#">Related reagents</a></p>  |
| <b>Synonyms</b>                          | STMY1  |
| <b>Fusion Partners</b>                   | Spleen cells from immunised Balb/c mice were fused with cells of the Ag8563 myeloma cell line.   |
| <b>Specificity</b>                       | <p><b>Mouse anti Human MMP-3 antibody, clone 1B4</b> recognizes human matrix metalloproteinase 3, also known as MMP-3, stromelysin-1 or transin-1. MMP-3 in its pro-form is a 477 amino acid ~54kDa zinc dependent endopeptidase processed to a 378 amino acid, ~45 kDa peptide in the mature form containing 4 <a href="#">hemopexin-like</a> repeats.</p> <p>MMPs are also involved in cell proliferation, migration, differentiation and apoptosis (<a href="#">Jana et al. 2012</a>). Most MMP's are synthesised as inactive zymogens and a propeptide region must be cleaved off before the enzyme becomes active. Their expression is increased dramatically in a variety of cancer types, where it indicates invasive disease and a poor prognosis (<a href="#">Holmberg et al. 2013</a>). MMP-3 can degrade proteoglycan, fibronectin, laminin, and type IV collagen, but not interstitial type I collagen (<a href="#">Wilhelm et al. 1993</a>). It can activate other MMP's and may be involved in the repair processes of the heart after myocardial infarction (<a href="#">Wang et al. 2011</a>).</p> <p>Mouse anti human MMP-3 antibody, clone 1B4 has been used successfully for the identification of MMP-3 in gastric cancer by both Western blotting and immunohistochemistry (<a href="#">Murray et al. 1998</a>)</p> |
| <b>Histology Positive Control Tissue</b> | Gastric carcinoma  |
| <b>Western Blotting</b>                  | MCA2734 detects a band of approximately 50kDa in cell lysates.   |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>Murray, G.I. <i>et al.</i> (1998) Matrix metalloproteinases and their inhibitors in gastric cancer. <a href="#">Gut. 43 (6): 791-7.</a></li> <li>Lyall, M.S. <i>et al.</i> (2006) Profiling markers of prognosis in colorectal cancer. <a href="#">Clin Cancer Res. 12 (4): 1184-91.</a></li> </ol>   |
| <b>Storage</b>                           | <p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. 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: 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 \(MCA928\)](#)

### Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000B\)](#)

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'M315855:180503'

Printed on 05 May 2018

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