

## Datasheet: MCA1340

|                      |                         |
|----------------------|-------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD120a |
| <b>Specificity:</b>  | CD120a                  |
| <b>Other names:</b>  | TNF-R1                  |
| <b>Format:</b>       | Purified                |
| <b>Product Type:</b> | Monoclonal Antibody     |
| <b>Clone:</b>        | H398                    |
| <b>Isotype:</b>      | IgG2a                   |
| <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 |     |    | ▪              |                    |
| ELISA                      | ▪   |    |                |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           |     |    | ▪              |                    |
| Radioimmunoassays          | ▪   |    |                |                    |

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.

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|---------------------------------------|---|
| <b>Target Species</b>                 | Human   |
| <b>Species Cross Reactivity</b>       | Reacts with: Rabbit<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. |
| <b>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant           |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide  |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml   |

|                                |   |
|--------------------------------|---|
| <b>Immunogen</b>               | Purified human tumour necrosis factor receptor type 1.  |
| <b>External Database Links</b> | <p><b>UniProt:</b><br/> <a href="#">P19438</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">7132</a>    TNFRSF1A    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                | TNFAR, TNFR1  |
| <b>Fusion Partners</b>         | Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS0 myeloma cell line.   |
| <b>Specificity</b>             | <p><b>Mouse anti Human CD120a antibody, clone H398</b> recognizes an extracellular domain of the ~55 kDa human TNF receptor (p55, TNF-R1, CD120a). No binding occurs to the ~75 kDa TNF receptor (CD120b). CD120a is weakly expressed by monocytes and granulocytes.</p> <p>Mouse anti Human CD120a antibody, clone H398 may be used to detect high levels of TNFR1, in western blotting under reducing conditions, such as recombinant material, but it is not suitable for detection of TNFR1 in normal cells in this application.</p> <p>Mouse anti Human CD120a antibody, clone H398 inhibits the biological activity of both natural and recombinant human TNFalpha and TNFbeta (<a href="#">Thoma et al. 1990</a> and <a href="#">Dri et al. 1999</a>).</p> <p>Mouse anti Human CD120a antibody, clone H398 is routinely tested in flow cytometry on human peripheral blood monocytes.</p>  |
| <b>References</b>              | <ol style="list-style-type: none"> <li>1. Thoma, B. <i>et al.</i> (1990) Identification of a 60-kD tumor necrosis factor (TNF) receptor as the major signal transducing component in TNF responses. <a href="#">J Exp Med. 172 (4): 1019-23.</a></li> <li>2. Menegazzi, R. <i>et al.</i> (1994) Evidence that tumor necrosis factor alpha (TNF)-induced activation of neutrophil respiratory burst on biologic surfaces is mediated by the p55 TNF receptor. <a href="#">Blood. 84 (1): 287-93.</a></li> <li>3. Dri, P. <i>et al.</i> (1999) Role of the 75-kDa TNF receptor in TNF-induced activation of neutrophil respiratory burst. <a href="#">J Immunol. 162 (1): 460-6.</a></li> <li>4. Kohrgruber, N. <i>et al.</i> (1999) Survival, maturation, and function of CD11c- and CD11c+ peripheral blood dendritic cells are differentially regulated by cytokines. <a href="#">J Immunol. 163 (6): 3250-9.</a></li> <li>5. Weigert, N. <i>et al.</i> (1996) Gastrin secretion from primary cultures of rabbit antral G cells: stimulation by inflammatory cytokines. <a href="#">Gastroenterology. 110 (1): 147-54.</a></li> <li>6. Kennedy, G. <i>et al.</i> (2010) Biochemical and vascular aspects of pediatric chronic fatigue syndrome. <a href="#">Arch Pediatr Adolesc Med. 164 (9): 817-23.</a></li> <li>7. Gregory, A.P. <i>et al.</i> (2012) TNF receptor 1 genetic risk mirrors outcome of anti-TNF therapy in multiple sclerosis. <a href="#">Nature. 488 (7412): 508-11.</a></li> <li>8. Schett, G. <i>et al.</i> (2003) TNFalpha mediates susceptibility to heat-induced apoptosis by protein phosphatase-mediated inhibition of the HSF1/hsp70 stress response. <a href="#">Cell Death Differ. 10: 1126-36.</a></li> <li>9. Buckley, C.D. <i>et al.</i> (2005) Identification of a phenotypically and functionally distinct population of long-lived neutrophils in a model of reverse endothelial migration. <a href="#">J Leukoc Biol. 79: 303-11.</a></li> <li>10. Thiery, J. <i>et al.</i> (2003) Potentiation of a tumor cell susceptibility to autologous CTL killing by restoration of wild-type p53 function. <a href="#">J Immunol. 170: 5919-26.</a></li> <li>11. Lin, K.H. <i>et al.</i> (2009) Mechanisms of resveratrol-induced platelet apoptosis. <a href="#">Cardiovasc Res. 83: 575-85.</a></li> <li>12. Baker, P.K. <i>et al.</i> (2012) Response of hairy cells to IFN-alpha involves induction of apoptosis</li> </ol> |

through autocrine TNF-alpha and protection by adhesion. [Blood. 100: 647-53.](#)  
13. Nakamura-Lopez, Y. *et al.* (2015) RSV P-protein impairs extrinsic apoptosis pathway in a macrophage-like cell line persistently infected with respiratory syncytial virus. [Virus Res. 204: 82-7.](#)

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| <b>Storage</b>                       | Store at +4°C or at -20°C if preferred.<br><br>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. |
| <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  |

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## 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>  |
| Human Anti Mouse IgG2a (HCA037...)      | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <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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'M261391:140924'

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