

## Datasheet: MCA1488

<b>Description:</b>	RAT ANTI MOUSE TNF ALPHA
<b>Specificity:</b>	TNF ALPHA
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MP6-XT22
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.5 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)	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			1ug/ml - 10ug/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. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

### Target Species

Mouse

### Species Cross Reactivity

Reacts with: Rat

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Purified IgG - liquid

### Preparation

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>	Recombinant murine TNF alpha expressed in <i>E. coli</i> .
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P06804</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">21926</a> Tnf    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Tnfa, Tnfsf2
<b>RRID</b>	AB_323519
<b>Specificity</b>	<p><b>Rat anti Mouse TNF alpha antibody, clone MP6-XT22</b> recognizes mouse tumor necrosis factor alpha (TNF alpha), a ~17 kDa cytokine produced by monocytes, macrophages, neutrophils, NK cells and CD4+ T cells. TNF alpha forms dimers and trimers, and is also found as a ~26 kDa integral membrane protein. Mouse TNF alpha has cytolytic activity against many tumor cell lines, and has an important immunoregulatory role.</p> <p>Rat anti Mouse TNF alpha antibody, clone MP6-XT22 is reported to neutralize the effects of mouse TNF alpha (<a href="#">Gaup <i>et al.</i> 2008</a> and <a href="#">Yang <i>et al.</i> 1995</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Hostager, B.S. &amp; Bishop, G.A. (2002) Role of TNF receptor-associated factor 2 in the activation of IgM secretion by CD40 and CD120b. <a href="#">J Immunol. 168 (7): 3318-22.</a></li> <li>Gholami, M. <i>et al.</i> (2015) Selenium effect on ischemia-reperfusion injury of gastrocnemius muscle in adult rats. <a href="#">Biol Trace Elem Res. 164 (2): 205-11.</a></li> <li>Ross, S.E. <i>et al.</i> (1997) Suppression of TNF-alpha expression, inhibition of Th1 activity, and amelioration of collagen-induced arthritis by rolipram. <a href="#">J Immunol. 159 (12): 6253-9.</a></li> <li>Gaup, S. <i>et al.</i> (2008) Amelioration of experimental autoimmune encephalomyelitis in IL-4Ralpha<sup>-/-</sup> mice implicates compensatory up-regulation of Th2-type cytokines. <a href="#">Am J Pathol. 173: 119-29.</a></li> <li>Yang, J. <i>et al.</i> (1995) Involvement of natural killer cells in nitric oxide production by spleen cells after stimulation with <i>Mycobacterium bovis</i> BCG. Study of the mechanism of the different abilities of viable and killed BCG. <a href="#">J Immunol. 155 (12): 5728-35.</a></li> <li>Ruan, L. <i>et al.</i> (2009) Amyloid deposition and inflammation in APP<sup>swe</sup>/PS1<sup>dE9</sup> mouse model of Alzheimer's disease. <a href="#">Curr Alzheimer Res. 6: 531-40.</a></li> </ol>

7. Nahrendorf, M. *et al.* (2007) The healing myocardium sequentially mobilizes two monocyte subsets with divergent and complementary functions. [J Exp Med. 204: 3037-47.](#)
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11. Ramakrishna, C. *et al.* (2004) Differential regulation of primary and secondary CD8+ T cells in the central nervous system. [J Immunol. 173: 6265-73.](#)
12. O'Dea, K.P. *et al.* (2011) Regulation of monocyte subset proinflammatory responses within the lung microvasculature by the p38 MAPK/MK2 pathway. [Am J Physiol Lung Cell Mol Physiol. 301: L812-21.](#)
13. Lee JK *et al.* (2015) Iron accumulation promotes TACE-mediated TNF- $\alpha$  secretion and neurodegeneration in a mouse model of ALS. [Neurobiol Dis. 80: 63-9.](#)
14. Gholami, M.R. *et al.* (2020) Protective effects of honey, *Apis mellifera meda*. skorikov, on ischemia-reperfusion induced muscle injury. [Int J Morphol., 38 \(3\): 804-10,](#)

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**Further Reading** 1. Abrams, J.S. *et al.* (1992) Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. [Immunol Rev. 127: 5-24.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@650</a> , <a href="#">DyLight@800</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

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