

## Datasheet: MCA1560PE

<b>Description:</b>	RAT ANTI HUMAN TNF ALPHA:RPE
<b>Specificity:</b>	TNF ALPHA
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MP9-20A4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS

## 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)	▪			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.

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

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
	5% Sucrose		
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P01375</a> <a href="#">Related reagents</a>		
	<b>Entrez Gene:</b> <a href="#">7124</a> TNF <a href="#">Related reagents</a>		

<b>Synonyms</b>	TNFA, TNFSF2
<b>Specificity</b>	<p><b>Rat anti Human TNF alpha antibody, clone MP9-20A4</b> recognizes human tumor Necrosis Factor - alpha (TNF alpha), also known as TNFSF2. This ~17kDa cytokine is expressed by activated macrophages, monocytes, neutrophils, T cells and NK cells.</p> <p>Rat anti Human TNF alpha antibody, clone MP9-20A4 is reported to act as a blocking antibody (<a href="#">Abrams et al. 2001</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul. 9&vers=NA">BUF09) for this purpose.
<b>References</b>	<ol style="list-style-type: none"> <li>Butler, D.M. <i>et al.</i> (1997) DBA/1 mice expressing the human TNF-alpha transgene develop a severe, erosive arthritis: characterization of the cytokine cascade and cellular composition. <a href="#">J Immunol. 159 (6): 2867-76.</a></li> <li>Vujanovic, L. <i>et al.</i> (2010) Virally infected and matured human dendritic cells activate natural killer cells via cooperative activity of plasma membrane-bound TNF and IL-15. <a href="#">Blood. 116: 575-83.</a></li> <li>Abrams, J.S. (2001) Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. <a href="#">Curr Protoc Immunol. Chapter 6: Unit 6.20.</a></li> <li>Evans HG <i>et al.</i> (2009) <i>In vivo</i> activated monocytes from the site of inflammation in humans specifically promote Th17 responses. <a href="#">Proc Natl Acad Sci U S A. 106 (15): 6232-7.</a></li> <li>Kobawala TP <i>et al.</i> (2016) Significance of TNF-α and the Adhesion Molecules: L-Selectin and VCAM-1 in Papillary Thyroid Carcinoma. <a href="#">J Thyroid Res. 2016: 8143695.</a></li> <li>Mann, E.R. <i>et al.</i> (2016) Compartment-specific immunity in the human gut: properties and functions of dendritic cells in the colon versus the ileum. <a href="#">Gut. 65 (2): 256-70.</a></li> <li>Kumagai, M. <i>et al.</i> (2012) Effective transgene expression without toxicity by intraperitoneal administration of PEG-detachable polyplex micelles in mice with peritoneal dissemination. <a href="#">J Control Release. 160 (3): 542-51.</a></li> <li>Poussin C <i>et al.</i> (2014) Mechanism of an indirect effect of aqueous cigarette smoke extract on the adhesion of monocytic cells to endothelial cells in an <i>in vitro</i> assay revealed by transcriptomics analysis. <a href="#">Toxicol In Vitro. 28 (5): 896-908.</a></li> </ol>
<b>Further Reading</b>	1. Kadowaki, N. <i>et al.</i> (2000) Natural interferon alpha/beta-producing cells link innate and adaptive immunity. <a href="#">J Exp Med. 192 (2): 219-26.</a>
<b>Storage</b>	<p>Store at +4°C.</p> <p>DO NOT FREEZE.</p> <p>This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Shelf Life</b>	12 months from date of reconstitution.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10075 available at: 10075: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL:RPE \(MCA6004PE\)](#)

## Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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