

Datasheet: MCA1560

BATCH NUMBER 157739

Description:	RAT ANTI HUMAN TNF ALPHA
Specificity:	TNF ALPHA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MP9-20A4
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			5ug/ml - 10ug/ml
Immunoprecipitation			▪	
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.

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

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Carrier Free	Yes
Approx. Protein Concentrations	1.0 mg/ml
External Database Links	<p>UniProt: P01375 Related reagents</p> <p>Entrez Gene: 7124 TNF Related reagents</p>
Synonyms	TNFA, TNFSF2
RRID	AB_567239
Specificity	<p>Rat anti Human TNF alpha antibody, clone MP9-20A4 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 (Abrams <i>et al.</i> 2001).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 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. J Immunol. 159 (6): 2867-76. 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. Blood. 116: 575-83. Abrams, J.S. (2001) Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. Curr Protoc Immunol. Chapter 6: Unit 6.20. Evans HG <i>et al.</i> (2009) <i>In vivo</i> activated monocytes from the site of inflammation in humans specifically promote Th17 responses. Proc Natl Acad Sci U S A. 106 (15): 6232-7. Kobawala TP <i>et al.</i> (2016) Significance of TNF-α and the Adhesion Molecules: L-Selectin and VCAM-1 in Papillary Thyroid Carcinoma. J Thyroid Res. 2016: 8143695. 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. Gut. 65 (2): 256-70. 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. J Control Release. 160 (3): 542-51. 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. Toxicol In Vitro. 28 (5): 896-908.
Further Reading	1. Kadowaki, N. <i>et al.</i> (2000) Natural interferon alpha/beta-producing cells link innate and

adaptive immunity. [J Exp Med. 192 \(2\): 219-26.](#)

Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1560 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL \(MCA6004GA\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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