

Datasheet: MCA1560PE

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

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

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) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

Target Species	Human		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Antibody purified from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% sodium azide (NaN ₃) 1% bovine serum albumin 5% sucrose		

**External Database
Links**

UniProt:

[P01375](#) [Related reagents](#)

Entrez Gene:

[7124](#) TNF [Related reagents](#)

Synonyms

TNFA, TNFSF2

RRID

AB_322497

Specificity

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.

Rat anti Human TNF alpha antibody, clone MP9-20A4 is reported to act as a blocking antibody ([Abrams *et al.* 2001](#)).

Flow Cytometry

Use 10µl of the suggested working dilution to label 1x10⁶ cells in 100µl

References

1. Butler, D.M. *et al.* (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.](#)
2. 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.](#)
3. Evans HG *et al.* (2009) *In vivo* activated monocytes from the site of inflammation in humans specifically promote Th17 responses. [Proc Natl Acad Sci U S A. 106 \(15\): 6232-7.](#)
4. Vujanovic, L. *et al.* (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.](#)
5. Kumagai, M. *et al.* (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.](#)
6. Poussin C *et al.* (2014) Mechanism of an indirect effect of aqueous cigarette smoke extract on the adhesion of monocytic cells to endothelial cells in an *in vitro* assay revealed by transcriptomics analysis. [Toxicol In Vitro. 28 \(5\): 896-908.](#)
7. Mann, E.R. *et al.* (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.](#)
8. Kobawala TP *et al.* (2016) Significance of TNF-α and the Adhesion Molecules: L-Selectin and VCAM-1 in Papillary Thyroid Carcinoma. [J Thyroid Res. 2016: 8143695.](#)

Further Reading

1. Kadowaki, N. *et al.* (2000) Natural interferon alpha/beta-producing cells link innate and adaptive immunity. [J Exp Med. 192 \(2\): 219-26.](#)

Storage

Store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be

protected from light. Should this product contain a precipitate we recommend micro-centrifugation before use.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1560PE 20487
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

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

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

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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
'M419474:230616'

Printed on 19 Oct 2023

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