

Datasheet: MCA1488

Description:	RAT ANTI MOUSE TNF ALPHA
Specificity:	TNF ALPHA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MP6-XT22
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)	▪			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.
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	IgG concentration 1.0 mg/ml

Immunogen Recombinant murine TNF alpha expressed in *E. coli*.

External Database Links

UniProt:

[P06804](#) [Related reagents](#)

Entrez Gene:

[21926](#) Tnf [Related reagents](#)

Synonyms

Tnfa, Tnfsf2

Specificity

Rat anti Mouse TNF alpha antibody, clone MP6-XT22 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 26KDa integral membrane protein. Mouse TNF alpha has cytolytic activity against many tumor cell lines, and has an important immuno-regulatory role.

Rat anti Mouse TNF alpha antibody, clone MP6-XT22 is reported to neutralize the effects of mouse TNF alpha ([Gaup et al. 2008](#) and [Yang et al. 1995](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Hostager, B.S. & Bishop, G.A. (2002) Role of TNF receptor-associated factor 2 in the activation of IgM secretion by CD40 and CD120b. [J Immunol. 168 \(7\): 3318-22.](#)
 2. Gholami, M. et al. (2015) Selenium effect on ischemia-reperfusion injury of gastrocnemius muscle in adult rats. [Biol Trace Elem Res. 164 \(2\): 205-11.](#)
 3. Ross, S.E. et al. (1997) Suppression of TNF-alpha expression, inhibition of Th1 activity, and amelioration of collagen-induced arthritis by rolipram. [J Immunol. 159 \(12\): 6253-9.](#)
 4. Gaupp, S. et al. (2008) Amelioration of experimental autoimmune encephalomyelitis in IL-4Ralpha-/- mice implicates compensatory up-regulation of Th2-type cytokines. [Am J Pathol. 173: 119-29.](#)
 5. Yang, J. et al. (1995) Involvement of natural killer cells in nitric oxide production by spleen cells after stimulation with *Mycobacterium bovis* BCG. Study of the mechanism of the different abilities of viable and killed BCG. [J Immunol. 155 \(12\): 5728-35.](#)
 6. Ruan, L. et al. (2009) Amyloid deposition and inflammation in APP^{swe}/PS1^{dE9} mouse model of Alzheimer's disease. [Curr Alzheimer Res. 6: 531-40.](#)
 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.](#)
 8. Jordan, M.B. et al. (2004) An animal model of hemophagocytic lymphohistiocytosis (HLH): CD8+ T cells and interferon gamma are essential for the disorder. [Blood. 104: 735-43.](#)
 9. Hanada, T. et al. (2006) IFNgamma-dependent, spontaneous development of colorectal carcinomas in SOCS1-deficient mice. [J Exp Med. 203: 1391-7.](#)
 10. Lee, Y.L. et al. (2003) Oral administration of *Agaricus blazei* (H1 strain) inhibited tumor growth in a sarcoma 180 inoculation model. [Exp Anim. 52: 371-5.](#)
 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-α secretion and neurodegeneration in a mouse model of ALS. [Neurobiol Dis. 80: 63-9.](#)
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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.](#)

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 antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL \(MCA1211\)](#)

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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