

Datasheet: MCA797

**BATCH NUMBER 151471**

<b>Description:</b>	MOUSE ANTI HUMAN TGF BETA
<b>Specificity:</b>	TGF BETA
<b>Other names:</b>	TRANSFORMING GROWTH FACTOR BETA
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	TB21
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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)	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (2)	▪			
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			

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

(2) **Mouse anti Human TGF β antibody, clone TB21 has been used successfully on FFPE tissues without pretreatment e.g. [Bob et al.](#) and [Booth et al.](#). Others have used either [citrate pH6.0](#), [EDTA pH8.0](#) or [pepsin](#) mediated antigen retrieval.**

### Target Species

Human

### Species Cross Reactivity

Reacts with: Rat, Sheep, Mustelid, Mink, Rabbit, Mouse

**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.

<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Human Transforming Growth Factor Beta 1 from platelets.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P01137</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">7040</a> TGFB1 <a href="#">Related reagents</a>
<b>Synonyms</b>	TGFB
<b>RRID</b>	AB_2201912
<b>Fusion Partners</b>	Spleen cells from immunised Balb/c mice were fused with cells of the SP2/0-Ag 14 mouse myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Human TGF beta antibody, clone TB21</b> recognizes both human platelet-derived and recombinant TGF-beta1 in enzyme-linked immunosorbent assay (ELISA). Mouse anti Human TGF beta antibody, clone TB21 demonstrates neutralising activity against TGF-beta1 in cell proliferation assays. Mouse anti Human TGF beta antibody, clone TB21 has been demonstrated to react with dimeric (~25 kDa) or monomeric (~12.5 kDa) molecules of natural TGF-beta1 under non-reducing and reducing conditions respectively.
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul
<b>Histology Positive Control Tissue</b>	Human Breast Carcinoma
<b>References</b>	1. Bob, F. <i>et al.</i> (2014) Immunohistochemical study of tubular epithelial cells and vascular endothelial cells in glomerulonephritis. <a href="#">Ren Fail. 36: 1208-14.</a> 2. Lehr, E.J. <i>et al.</i> (2010) Decellularization reduces immunogenicity of sheep pulmonary artery vascular patches. <a href="#">J Thorac Cardiovasc Surg. 141: 1056-62.</a> 3. Westermann, D. <i>et al.</i> (2011) Cardiac inflammation contributes to changes in the

- extracellular matrix in patients with heart failure and normal ejection fraction. [Circ Heart Fail. 4: 44-52.](#)
4. Brown, H. *et al.* (1999) Cytokine expression in the brain in human cerebral malaria. [J Infect Dis. 180: 1742-6.](#)
  5. Helske, S. *et al.* (2006) Possible role for mast cell-derived cathepsin G in the adverse remodelling of stenotic aortic valves. [Eur Heart J. 27: 1495-504.](#)
  6. Hsiao, Y.W. *et al.* (2004) Tumor-infiltrating lymphocyte secretion of IL-6 antagonizes tumor-derived TGF-beta 1 and restores the lymphokine-activated killing activity. [J Immunol. 172: 1508-14.](#)
  7. Kingston, P.A. *et al.* (2003) Adenovirus-mediated gene transfer of transforming growth factor-beta3, but not transforming growth factor-beta1, inhibits constrictive remodeling and reduces luminal loss after coronary angioplasty. [Circulation. 108: 2819-25.](#)
  8. Lavaud, S. *et al.* (2001) Inflammation is probably not a prerequisite for renal interstitial fibrosis in normoglycemic obese rats. [Am J Physiol Renal Physiol. 280: F683-94.](#)
  9. Sheu, B.C. *et al.* (2001) Predominant Th2/Tc2 polarity of tumor-infiltrating lymphocytes in human cervical cancer. [J Immunol. 167: 2972-8.](#)
  10. Hopkinson, A. *et al.* (2006) Amniotic membrane for ocular surface reconstruction: donor variations and the effect of handling on TGF-beta content. [Invest Ophthalmol Vis Sci. 47: 4316-22.](#)
  11. Sumpster, T.L. *et al.* (2007) Regulation of the NFAT pathway discriminates CD4+CD25+ regulatory T cells from CD4+CD25- helper T cells. [J Leukoc Biol. 83: 708-17.](#)
  12. Braun, N. *et al.* (2011) Difference in the expression of hormone receptors and fibrotic markers in the human peritoneum--implications for therapeutic targets to prevent encapsulating peritoneal sclerosis. [Perit Dial Int. 31: 291-300.](#)
  13. Shi, W.K. *et al.* (1993) [Biological characterization of a monoclonal antibody TB 21 against human transforming growth factor-beta 1]. [Shi Yan Sheng Wu Xue Bao. 26: 141-50.](#)
  14. Bob, F.R. *et al.* (2011) Histological changes and immunohistochemical markers in the assessment of glomerulosclerosis in patients with glomerulonephritis. [Rom J Morphol Embryol. 52: 1027-32.](#)
  15. Lyras, D.N. *et al.* (2010) Temporal and spatial expression of TGF-beta1 in an Achilles tendon section model after application of platelet-rich plasma. [Foot Ankle Surg. 16: 137-41.](#)
  16. Fernandez, T. *et al.* (2002) Disruption of transforming growth factor beta signaling by a novel ligand-dependent mechanism. [J Exp Med. 195: 1247-55.](#)
  17. Omer, F.M. and Riley, E.M. (1998) Transforming growth factor beta production is inversely correlated with severity of murine malaria infection. [J Exp Med. 188: 39-48.](#)
  18. Calveley, V.L. *et al.* (2010) Genistein can mitigate the effect of radiation on rat lung tissue. [Radiat Res. 173: 602-11.](#)
  19. Paalangara, R. *et al.* (2003) Intestinal exposure to a parasite antigen in utero depresses cellular and cytokine responses of the mucosal immune system. [Vet Immunol Immunopathol. 93: 91-105.](#)
  20. Mahmood, J. *et al.* (2011) Mitigation of lung injury after accidental exposure to radiation. [Radiat Res. 176: 770-80.](#)
  21. Ueda, S. *et al.* (2003) Transforming growth factor-beta1 released from the spleen exerts a growth inhibitory effect on liver regeneration in rats. [Lab Invest. 83: 1595-603.](#)
  22. Moussay, E. *et al.* (2006) *Escherichia coli* Shiga toxin 1 enhances il-4 transcripts in

- bovine ileal intraepithelial lymphocytes. [Vet Immunol Immunopathol. 113: 367-82.](#)
23. Nicotina, P.A. *et al.* (1997) Segmental up-regulation of transforming growth factor-beta in the pathogenesis of primary megareter. An immunocytochemical study. [Br J Urol. 80: 946-9.](#)
24. Hu, H-Y. *et al.* (2016) ATRA alleviated endometrial fibrosis in a rabbit intrauterine adhesions model through downregulation of the TGF-β1/smad4 signaling pathway. [Int J Clin Exp Pathol 9\(6\): 6171-8.](#)
25. Yusup, A. *et al.* (2015) Bone marrow lesions, subchondral bone cysts and subchondral bone attrition are associated with histological synovitis in patients with end-stage knee osteoarthritis: a cross-sectional study. [Osteoarthritis Cartilage. 23 \(11\): 1858-64.](#)
26. Elkabir, M.A. *et al.* (2016) Efficacy of azithromycin and metronidazole combined therapy on rats' gingival overgrowth induced by cyclosporine-A: An experimental animal study. [J Oral Biol Craniofac Res. 6 \(3\): 219-226.](#)
27. Attia, G.M. *et al.* (2017) Autologous platelet rich plasma enhances satellite cells expression of MyoD and exerts angiogenic and antifibrotic effects in experimental rat model of traumatic skeletal muscle injury [Egypt J Histol 40 \(4\): 443-58](#)
28. Kim, M. *et al.* (2013) Expression of Foxp3 in colorectal cancer but not in Treg cells correlates with disease progression in patients with colorectal cancer. [PLoS One. 8 \(1\): e53630.](#)
29. Gomaa, W.M. *et al.* (2014) Overexpression of cyclooxygenase-2 and transforming growth factor-beta 1 is an independent predictor of poor virological response to interferon therapy in chronic HCV genotype 4 patients. [Saudi J Gastroenterol. 20 \(1\): 59-65.](#)

---

**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.

---

**Guarantee**

6 months from date of despatch

---

**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA79710040>

---

**Regulatory**

For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

- |   |                      |
|---|----------------------|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>  |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>  |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a> |

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### **Recommended Negative Controls**

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

'M344751:190118'

**Printed on 05 Feb 2024**

---

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)