

Datasheet: AAR33

BATCH NUMBER 163454

Description:	RABBIT ANTI RAT TNF ALPHA
Specificity:	TNF ALPHA
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			
ELISA	▪			0.5 - 2.0 ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			0.1 - 0.2 ug/ml
Functional Assays	▪			0.07 - 0.1 ug/ml

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 systems with the appropriate negative/positive controls.

Target Species

Rat

Product Form

Purified IgG - lyophilized

Reconstitution

Reconstitute with 0.1ml distilled water

Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended.

N.B. For functional studies do not add sodium azide

Antiserum Preparation

Antisera to rat TNF alpha were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography.

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml after reconstitution.
Immunogen	Recombinant rat TNF alpha (PRP16).
External Database Links	<p>UniProt: P16599 Related reagents</p> <p>Entrez Gene: 24835 Tnf Related reagents</p>
Synonyms	Tnfa, Tnfsf2
RRID	AB_2204372
Specificity	Rabbit anti Rat TNF alpha antibody recognizes rat tumor necrosis factor alpha (TNF α), also known as Cachectin or Tumor necrosis factor ligand superfamily member 2. Rat TNF α is a 235 amino acid ~17 kDa single pass type II O-linked transmembrane glycoprotein, it also exists as a secreted cytokine through cleavage between residues 79 and 80. TNF α is produced by many cell types including macrophages, monocytes, neutrophils and a population of activated NK cells.
ELISA	This product may be used in an indirect ELISA or as a capture antibody in a sandwich ELISA together with AAR33B as the detection reagent and PRP16 as the standard.
References	<ol style="list-style-type: none"> 1. Irwin, M.W. <i>et al.</i> (1999) Tissue expression and immunolocalization of tumor necrosis factor-alpha in postinfarction dysfunctional myocardium. Circulation. 99: 1492-8. 2. Sandoval, J. <i>et al.</i> (2010) Ordered transcriptional factor recruitment and epigenetic regulation of tnf-alpha in necrotizing acute pancreatitis. Cell Mol Life Sci. 67: 1687-97. 3. Khandelwal, P.J. <i>et al.</i> (2010) Parkinson-related parkin reduces α-Synuclein phosphorylation in a gene transfer model. Mol Neurodegener. 5: 47. 4. Halin, S. <i>et al.</i> (2010) Pigment epithelium-derived factor stimulates tumor macrophage recruitment and is downregulated by the prostate tumor microenvironment. Neoplasia. 12: 336-45. 5. El-Kharashi, O.A. <i>et al.</i> (2011) The Potential Pharmacological and Histological Benefits of Carvedilol on the Hippocampal Post- Stroke Seizures in Rats Life Science Journal, 8: 951-60 6. Elgarf, A.S. <i>et al.</i> (2014) Lipopolysaccharide repeated challenge followed by chronic mild stress protocol introduces a combined model of depression in rats: reversibility by imipramine and pentoxifylline. Pharmacol Biochem Behav. 126: 152-62. 7. Li, J. <i>et al.</i> (2015) Targeting NF-κB and TNF-α Activation by Electroacupuncture to

- Suppress Collagen-induced Rheumatoid Arthritis in Model Rats. [Altern Ther Health Med. 21 \(4\): 26-34.](#)
8. Zhang, Y. *et al.* (2015) Simvastatin inhibits ischemia/reperfusion injury-induced apoptosis of retinal cells via downregulation of the tumor necrosis factor- α /nuclear factor- κ B pathway. [Int J Mol Med. 36 \(2\): 399-405.](#)
9. Aharon-Hananel G *et al.* (2015) Antidiabetic Effect of Interleukin-1 β Antibody Therapy Through β -Cell Protection in the Cohen Diabetes-Sensitive Rat. [Diabetes. 64 \(5\): 1780-5.](#)
10. Li, J. *et al.* (2016) Propofol reduces liver dysfunction caused by tumor necrosis factor- α production in Kupffer cells. [J Anesth. 30 \(3\): 420-6.](#)
11. Kartha, S. *et al.* (2016) Development of a Rat Model of Mechanically Induced Tunable Pain and Associated Temporomandibular Joint Responses. [J Oral Maxillofac Surg. 74 \(1\): 54.e1-10.](#)
12. Alizadeh, A. *et al.* (2017) Neuregulin-1 positively modulates glial response and improves neurological recovery following traumatic spinal cord injury. [Glia. 65 \(7\): 1152-75.](#)
13. Dyck, S. *et al.* (2018) Perturbing chondroitin sulfate proteoglycan signaling through LAR and PTP σ receptors promotes a beneficial inflammatory response following spinal cord injury. [J Neuroinflammation. 15 \(1\): 90.](#)
14. Noguchi, J. *et al.* (2020) Sperm immunization and rat spermatogenesis: Dysfunctional blood-testis barrier and perturbed Sertoli cell cytoskeleton [Andrology. 9 \(2\): 744-57.](#)
15. Lokhnauth, J. *et al.* (2020) Viscosupplementation may preserve tibial cartilage and collagen in osteoarthritis: findings from a preclinical model of osteoarthritis. [J Exp Orthop. 7 \(1\): 39.](#)
16. Menachem-Zidon, O.B. *et al.* (2020) Age-associated differences in macrophage response in a vaginal wound healing rat model. [Int Urogynecol J. 31 \(9\): 1803-9.](#)
17. Sperry, M.M. *et al.* (2020) Intra-articular etanercept attenuates pain and hypoxia from TMJ loading in the rat. [J Orthop Res. 38 \(6\): 1316-26.](#)
18. Hart, C.G. *et al.* (2020) Acute upregulation of bone morphogenetic protein-4 regulates endogenous cell response and promotes cell death in spinal cord injury. [Exp Neurol. 325: 113163.](#)

Storage

Prior to reconstitution store at -20°C.
After reconstitution store at -20°C.

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

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10294 available at: <https://www.bio-rad-antibodies.com/SDS/AAR33>
10294

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)

Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

North & South Tel: +1 800 265 7376

America 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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