



Biotinylated Ovine TNF- α Polyclonal Antibody

Antigen-affinity purified donkey anti-ovine TNF- α antibody

Catalog Number: GR109234

Background

TNF- α , the prototypical member of the TNF protein superfamily, is a homotrimeric type-II membrane protein (1, 2). Membrane bound TNF- α is cleaved by the metalloprotease TACE/ADAM17 to generate a soluble homotrimer (2). Both membrane and soluble forms of TNF- α are biologically active. TNF- α is produced primarily by macrophages, but it is produced also by a broad variety of cell types including lymphoid cells, mast cells, endothelial cells, cardiac myocytes, adipose tissue, fibroblasts, and neuronal tissue (1). Cellular response to TNF- α is mediated through interaction with receptors TNF-R1 and TNF-R2 and results in activation of pathways that favor both cell survival and apoptosis depending on the cell type and biological context. Activation of kinase pathways (including JNK, ERK (p44/42), p38 MAPK and NF- κ B) promotes the survival of cells, while TNF- α mediated activation of caspase-8 leads to programmed cell death (1,2). TNF- α plays a key regulatory role in inflammation and host defense against bacterial infection, notably *Mycobacterium tuberculosis* (3). TNF- α causes many of the clinical problems associated with autoimmune disorders such as rheumatoid arthritis, ankylosing spondylitis, inflammatory bowel disease, psoriasis, hidradenitis suppurativa and refractory asthma. The role of TNF- α in autoimmunity is underscored by blocking TNF- α action to treat rheumatoid arthritis and Crohn's disease (1, 2, 4).

References

1. Aggarwal, B.B. (2003) *Nat Rev Immunol* 3, 745-56.
2. Hehlhans, T. and Pfeffer, K. (2005) *Immunology* 115, 1-20.
3. Lin, P.L. et al. (2007) *J Investig Dermatol Symp Proc* 12, 22-5.
4. Brennan, F.M. and McInnes, I.B. (2008) *J Clin Invest* 118, 3537-45.

Related products

1. GR238016 50 ml Reagent Reservoir, 100/case, 5 packs/case (pack of 20)
2. GR238004 Tissue Culture 96-well Microplate, individually packed, Case of 50
3. GR238019 1.5 ml Microcentrifuge tube with screw cap and free-standing, pack of 500
4. GR238007 125 ml leak-resistant HDPE bottle, colorless, pack of 24
5. GR238002 Microplate 12x8-Well Strip High Binding, Case of 50
6. GR238003 Microplate 12x8-Well Strip Medium Binding, Case of 50
7. GR238032 42592 Costar Stripwell Microplate 1 x 8 Flat Bottom, High Binding, Case of 100
8. GR238001 468667 Thermo Microplate 12x8-Well Strip Nunc Maxisorp F8, Case of 60
9. GR238031 96-well microplate sealer plastic, pack of 100



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Description

Size: 50 μ g

Species reactivity: Ovine, bovine

Specificity: Detects ovine TNF- α in direct ELISA and Western blot.

Source: Polyclonal Donkey IgG

Purification: Antigen-affinity purified

Immunogen: *E. coli* derived recombinant ovine TNF- α , Leu78-Lys234, and Accession # NP_001020031.1

Endotoxin Level: < 0.20 EU per 1 μ g of the antibody by the LAL method.

Conjugate: Biotin

Formulation: Formulated from 0.2 μ m filtered PBS with 5% trehalose.

Application

Recommended concentration:

Western blot: 0.1-0.2 μ g/ml

Immunocytochemistry: 5-15 μ g/ml

ELISA: 0.2-0.5 μ g/ml

Neutralization: Measured by its ability to neutralize TNF- α activity in the mouse L929 cell line.

The Neutralization Dose (ND₅₀) is typically 0.02-.005 μ g/mL in the presence of 1.0 ng/mL

Recombinant Ovine TNF- α .

Preparation, Stability & Storage

Reconstitution: Reconstitute at 0.2 mg/ml in sterile PBS and 0.05% azide.

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 °C to -70 °C, as supplied.
- 6 months from date of receipt, -20 °C to -70 °C, after reconstitution.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN HUMANS AND ANIMALS**