



Biotinylated Equine IL-6 Polyclonal Antibody

Antigen Affinity-Purified Anti-Equine IL-6 Goat Antibody

Catalog Number: GR109007

Background

IL-6 is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine and is produced by T cells, macrophages, fibroblasts, osteoblasts, endothelial and other cells (1,2,3). IL-6 induces proliferation and differentiation and acts on B cells, T cells, thymocytes, and others. IL-6 is one of the most important mediators of fever and of the acute phase response. In the muscle and fatty tissue, IL-6 stimulates energy mobilization that leads to increased body temperature. IL-6 can be secreted by macrophages in response to specific microbial molecules, referred to as pathogen associated molecular patterns (PAMPS). IL-6 in concert with TGF β is important for developing Th17 responses. IL-6 binds to IL-6R α that through association induces gp130 homodimerization (1). gp130 homodimerization triggers the Jak/STAT cascade and the SHP2/Erk Map kinase cascade (1,4,5). IL-6 also forms a complex with an IL-6R α splice variant that is non-membrane associated (4). The IL-6/soluble IL-6R α complex can then activate the gp130 signaling pathway on cells that express gp130 but not IL6R α (4). IL-6 is relevant to many disease processes such as diabetes (6), atherosclerosis (7), depression (8), Alzheimer's Disease (9), systemic lupus erythematosus (10), prostate cancer (11), breast cancer (12), and rheumatoid arthritis (13).

References

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4. Jones, S.A. (2005) *J Immunol* 175, 3463-8.
5. Jenkins, B.J. et al. (2004) *Mol Cell Biol* 24, 1453-63.
6. Kristiansen OP and Mandrup-Poulsen T (2005). *Diabetes* 54 Suppl 2: S114–24.
7. Dubiński A and Zdrojewicz Z (2007). *Pol. Merkur. Lekarski* 22 (130): 291–4.
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Description

Species reactivity: Equine

Specificity: Detects equine IL6 in direct ELISAs and Western blots.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity purified

Immunogen: *E. coli* derived recombinant equine IL6, Phe26-Met208, and Accession # Q95181

Endotoxin Level: <0.10 EU per 1 μ g of the antibody by the LAL method.



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Formulation: Lyophilized from 0.2 µm filtered PBS with 5% trehalose.

Application

Reconstitution: Reconstitute at 0.2 mg/ml in sterile PBS

Recommended concentration:

Western blot-0.1 µg/ml

Immunocytochemistry-5-15 µg/ml

ELISA: 0.1-0.5 µg/ml

Neutralization: Measured by its ability to neutralize IL6 induced proliferation in the T1165.85.2.1 mouse plasmacytoma cell line. Nordan, R. P. and M. Potter (1986) Science **233**:566. The Neutralization Dose (ND₅₀) is typically 0.5-1.5 µg/mL in the presence of 4 ng/mL Recombinant Equine IL 6.

Stability & Storage

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

- 1 month from date of receipt, 4 °C, reconstituted.
- 6 months from date of receipt, -20°C to -70°C, reconstituted.

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 HUMAN AND ANIMALS.

28/08/2020

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