



## Genorise® Ovine IL-10 Polyclonal Antibody

Antigen-affinity purified rabbit anti-ovine IL-10 antibody  
Catalog Number: GR105094

### Background

IL-10, also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine that is produced by T cells, NK cells, mast cells and macrophages (1, 2, 3). It is capable of inhibiting synthesis of pro-inflammatory cytokines like IFN- $\gamma$ , IL-2, IL-3, TNF $\alpha$  and GM-CSF made by cells such as macrophages and regulatory T-cells. IL-10 also displays potent abilities to suppress the antigen presentation capacity of antigen presenting cells. IL-10 initiates signal transduction by binding to a cell surface receptor complex consisting of IL-10 RI and IL-10 RII (1). Binding of IL-10 leads to the activation of Jak1 and Tyk2, which phosphorylates Stat-3 (1, 4). The anti-inflammatory activity of IL-10 is due to its ability to block signaling through other cytokine receptors, notably IFN $\gamma$  receptor, by upregulating expression of SOCS-1 (1, 4). In addition, IL-10 promotes T cell tolerance by inhibiting tyrosine phosphorylation of CD28 (5, 6). IL-10 is an important negative regulator of the immune response, which allows for maintenance of pregnancy (1). In contrast, increased IL-10 levels contribute to persistent *Leishmania major* infections (7).

### References

1. Pestka, S. et al. (2004) *Immunol Rev* 202, 8-32.
2. Akuffo, H. et al. (1999) *Clin Exp Immunol* 117, 529-34.
3. Grimbaldston MA, et al (2007). *Nat. Immunol.* 8 (10): 1095–104.
4. O'Shea, J.J. and Murray, P.J. (2008) *Immunity* 28, 477-87.
5. Akdis, C.A. and Blaser, K. (2001) *Immunology* 103, 131-6.
6. Akdis, C.A. et al. (2000) *FASEB J* 14, 1666-8.
7. Von Stebut, E. (2000) *Eur J Dermatol* 17, 115-22.

### 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: 100 µg

Species reactivity: Ovine, bovine

Specificity: Detects ovine IL-10 in direct ELISA and Western blot.

Source: Rabbit IgG

Purification: Antigen-affinity purified

Immunogen: *E. coli* derived recombinant ovine IL-10, Ser19-Met177, and Accession # NP\_001009327.1

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

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

### Application

Recommended concentration:

Western blot-0.2-0.5 µg/ml

Immunocytochemistry-5-15 µg/ml

ELISA: 0.5-1.2 µg/ml

Neutralization: Measured by its ability to neutralize IL-10 induced proliferation in the MC/9-2 mouse mast cell line. The Neutralization Dose (ND<sub>50</sub>) is typically 0.2-.07 µg/mL in the presence of 20 ng/mL recombinant ovine IL-10.

### Preparation, Stability & Storage

Reconstitution: Reconstituted at 200 µg/ml in sterile PBS.

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

- 12 months as supplied.
- 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 HUMANS AND ANIMALS.