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Product Information

Anti-Interleukin-10
produced in goat, IgG fraction of antiserum

Catalog Number **I5145**

Synonym: Anti-IL-10

Product Description
Anti-Interleukin-10 is produced in goat using recombinant mouse interleukin-10 (rmIL-10), expressed in *Escherichia coli*, as the immunogen. The product is purified by Protein G affinity chromatography.

Interleukin-10 is a pleiotropic cytokine having actions that include inhibition of the synthesis of several other cytokines and co-stimulation of thymocytes and mast cell proliferation.[1,2] Anti-IL-10 neutralizes the bioactivity of rmIL-10, but not that of human, recombinant IL-10. In immunoblotting, this antibody displays less than 5% cross-reactivity against human recombinant IL-10.

Reagent
Supplied as a lyophilized powder from phosphate buffered saline, pH 7.4, with 5% trehalose. The PBS solution has been filtered through a 0.2 μm filter and the bottles are aseptically filled.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Reconstitution
To one vial of lyophilized powder, add 1 mL of sterile-filtered PBS to produce a 1 mg/mL stock solution of Anti-IL-10. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability
Prior to reconstitution, store at –20 °C for 6 months. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage of a solution, freeze in working aliquots at –20 °C. Avoid repeated freezing and thawing.

Product Profile
Neutralization: Anti-IL-10 was tested for its ability to neutralize the bioactivity of rmIL-10 in a cell proliferation assay using the mouse mast cell line, MC/9-2.[3] In this bioassay, rmIL-10 was pre-incubated with various dilutions of the antibody for 1 hour at 37 °C in a 96-well plate. Then MC/9-2 cells were added to each well to give a final concentration of 1 x 10^5 cells/mL in 0.1 ml containing 2.5 ng/mL of rmIL-10. This was incubated for ~44 hours at 37 °C in a 5% CO_2 humidified incubator and then pulsed for 4 hours with ^{3}H-thymidine. Cells were harvested onto glass filters and the ^{3}H-thymidine incorporation into DNA was measured.

The Neutralization $Dose_{50}$ (ND_{50}) for Anti-IL-10 is 2-4 μg/mL in the presence of 2.5 ng/mL of recombinant mouse IL-10, using the mouse mast cell line MC/9-2.

The ND_{50} of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of the bioactivity of rmIL-10, which is present at five times its own EC_{50} (the concentration of rmIL-10 producing a one-half maximal bioactivity without antibody).

Immunoblotting: a working concentration of 1-2 μg/mL antibody is recommended to visualize 20 ng/lane of rmIL-10 under non-reducing and reducing conditions.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining the optimal working dilutions by titration.

Endotoxin level is <0.1 EU/μg antibody as determined by the LAL method.

References
1. Fiorentino, D., et al., *J. Exp. Med.*, **170**, 2081 (1989).
2. Howard, M., et al., *J. Clin. Immunol.*, **4**, 239 (1992).
3. Thompson-Snipes, L., et al., *J. Exp. Med.*, **173**, 507 (1991).

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