



Product Information

ANTI-HUMAN LEUKEMIA INHIBITORY FACTOR

Developed in Goat
IgG Fraction of Antiserum

Product No. L 9277

Anti-Human Leukemia Inhibitory Factor is developed in goat using human, recombinant leukemia inhibitory factor (rhLIF), expressed in *E. coli*, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-LIF is provided lyophilized from phosphate buffered saline, pH 7.4, to which no preservatives have been added.

Description

Leukemia inhibitory factor is a multifunctional glycoprotein that induces macrophage differentiation and suppresses the proliferation of the murine M1 myeloid cell line.¹ Anti-Human LIF neutralizes the bioactivity of rhLIF but not that of mouse, recombinant LIF. The product shows no cross reactivity with other tested cytokines using indirect ELISA.

Performance

Anti-Human LIF was tested for its ability to neutralize the bioactivity of rhLIF in a cell proliferation assay using the factor-dependent cell line TF-1.² The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhLIF, which is present at five times its own EC₅₀ (the concentration of rhLIF producing a one-half maximal bioactivity without antibody). In this bioassay, rhLIF was pre-incubated with various dilutions of the antibody for 1 hour at 37 °C in a 96-well microtiter plate. Then, TF-1 cells were added to each well to give a final concentration of 1×10^5 cells/ml in 0.1 ml containing 1.5 ng/ml rhLIF. This was incubated for 48 hours at 37 °C in a 5% CO₂ humidified incubator and then pulsed for 4 hours with ³H-thymidine. Cells were harvested onto glass filters and the ³H-thymidine incorporation into DNA was measured.

Product Information

Mass/vial: 1 mg
Immunogen: Human, recombinant LIF (rhLIF)
Host animal: Goat
Formulation: Lyophilized from PBS without additives
Endotoxin: <10 ng/vial by LAL method
Bioactivity: ND₅₀ = <4.0 µg/ml
Indirect ELISA: 1 µg/ml detects 1 ng/well of rhLIF.

Indirect

Immunoblotting: 1 µg/ml antibody detects rhLIF at 5 ng/lane under reducing and non-reducing conditions.

Reconstitution and Use

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

Storage

Prior to reconstitution, store at -20 °C for 6 months. Reconstituted product may be stored at 0-5 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing.

References

1. Gearing, D., et al., EMBO J., **6**, 3995 (1987).
2. Kitamura, T., et al., J. Cell Physiol., **140**, 323 (1989).

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