Product No. I-4770
Lot 044H0297

Anti-Human Interleukin-9
Developed in Goat
IgG Fraction of Antiserum

Anti-Human Interleukin-9 is developed in goat using human, recombinant interleukin-9 (rhIL-9), expressed in the insect cell line *Sf* 21, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-Human IL-9 is provided lyophilized from phosphate buffered saline, pH 7.4, to which no preservatives have been added.

Description

Interleukin-9 is a T cell-derived[1] glycoprotein having multiple functions on cells of the lymphoid, myeloid, and mast cell lineages.[2] Anti-Human IL-9 neutralizes the bioactivity of rhIL-9 but not that of recombinant mouse IL-9. In indirect ELISA and immunoblotting, this antibody displays less than 20% cross-reactivity with recombinant, mouse IL-9. The product hows no cross-reactivity with other tested cytokines using indirect ELISA.

Performance

Anti-Human IL-9 was tested for its ability to neutralize the bioactivity of rhIL-9 in a cell proliferation assay using the factor-dependent human cell line MO7e.[3] The ND_{50} of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhIL-9, which is present at five times its own EC_{50} (the concentration of rhIL-9 producing a one-half maximal bioactivity without antibody). In this bioassay, rhIL-9 was pre-incubated with various dilutions of the antibody for 1 hour at 37°C in a 96-well microtiter plate. Then, MO7e 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 rhIL-9. This was incubated for 72 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.

Product Information

Mass/vial:	1 mg
Immunogen:	Human, recombinant IL-9 (rhIL-9)
Host animal:	Goat
Formulation:	Lyophilized from PBS without additives
Endotoxin:	<10 ng/vial by LAL method
Bioactivity:	ND_{50} = 24.8 µg/ml
Indirect ELISA:	0.5 µg/ml detects 0.3 ng/well of rhIL-9.
Indirect Immunoblotting:	1 µg/ml antibody detects rhIL-9 at 5 ng/lane under reducing conditions and at 20 ng/lane under non-reducing conditions.
Sterility:	0.2 μm-filtered, aseptic fill

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 IL-9. 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. Yang, Y., et al., Blood, **74**, 1880 (1989).
2. Renauld, J., et al., Int. Rev. Exp. Path., **34A**, 99 (1993).
3. Avanzi, G., et al., Br. J. Haematol., **69**, 359 (1988).

Prepared for Sigma.

Issued 06/94.