Product No. I-4895
Lot 044H0298

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

Anti-Mouse Interleukin-9 is developed in goat using recombinant, mouse interleukin-9 (rmIL-9), expressed in the insect cell line *Sf* 21, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-Mouse 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-Mouse IL-9 neutralizes the bioactivity of rmIL-9 but not that of human, recombinant IL-9. In indirect ELISA and immunoblotting, this antibody displays approximately 25% cross-reactivity with human, recombinant IL-9. The product shows no cross-reactivity with other tested cytokines using indirect ELISA.

Performance

Anti-Mouse IL-9 was tested for its ability to neutralize the bioactivity of rmIL-9 in a cell proliferation assay using the factor-dependent cell line TS1.[3] The ND_{50} of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rmIL-9, which is present at five times its own EC_{50} (the concentration of rmIL-9 producing a one-half maximal bioactivity without antibody). In this bioassay, rmIL-9 was pre-incubated with various dilutions of the antibody for 1 hour at 37°C in a 96-well microtiter plate. Then, TS1 cells were added to each well to give a final concentration of 2.5×10^3 cells/ml in 0.2 ml containing 0.05 ng/ml rmIL-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:	Mouse, recombinant IL-9 (rmIL-9)
Host animal:	Goat
Formulation:	Lyophilized from PBS without additives
Endotoxin:	<10 ng/vial by LAL method
Bioactivity:	ND_{50} = 4.1 µg/ml
Indirect ELISA:	0.5 µg/ml detects 0.15 ng/well of rmIL-9
Indirect Immunoblotting:	1 µg/ml antibody detects rmIL-9 at 1 ng/lane under both reducing and 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-Mouse 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. Uyttenhove, C., et al., Proc. Natl. Acad. Sci. USA, **85**, 6934 (1988).

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