Mouse IL-11 Rα Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF490

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-11 Rα in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-11 Rα Ser22-Gln367 Accession # Q64385
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

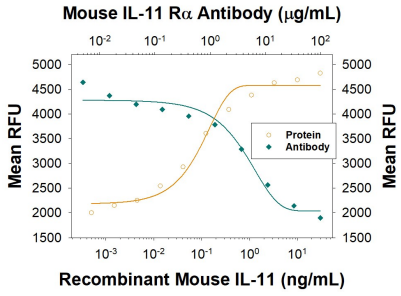
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse IL-11 Rα Fc Chimera (Catalog # 490-IR)
Neutralization	Measured by its ability to neutralize IL-11-induced proliferation in the T11 mouse plasmacytoma cell line. Nordan, R. P. *et al.* (1987) J. Immunol. **139**:813. The Neutralization Dose (ND_{50}) is typically 1-6 µg/mL in the presence of 1 ng/mL Recombinant Mouse IL-11.	

DATA

Neutralization



Cell Proliferation Induced by IL-11 and Neutralization by Mouse IL-11 Rα Antibody. Recombinant Mouse IL-11 (Catalog # 418-ML) stimulates proliferation in the T11 mouse plasmacytoma cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Mouse IL-11 (1 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse IL-11 Rα Antigen Affinity-purified Polyclonal Antibody (Catalog # AF490). The ND_{50} is typically 1-6 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Mouse interleukin 11 receptor alpha (IL-11 Rα), originally designated NR1, is a member of the hematopoietic cytokine receptor family that was cloned on the basis of its conserved WSXWS motif. IL-11 Rα cDNA encodes a 432 amino acid (aa) residue precursor type I membrane protein with a 23 aa residue signal peptide, a 344 aa residue extracellular domain containing two potential glycosylation sites, a 26 aa residue transmembrane region and a short (39 aa residue) cytoplasmic domain. In comparison with other hematopoietic cytokine receptors, the extracellular domain of IL-11 Rα is closely related to that of IL-6 Rα, CNTF Rα and the p40 subunit of IL-12, exhibiting 24%, 22% and 16% amino acid sequence identity, respectively. By itself, IL-11 Rα binds IL-11 with low affinity. IL-11 Rα, together with gp130, forms a functional high-affinity receptor complex for IL-11. The expression of IL-11 Rα has been detected in all adult tissues examined (lung, stomach, intestine), during embryonic development and in totipotent and differentiating embryonic stem cells. Recombinant soluble IL-11 Rα has been shown to mediate IL-11 responsiveness in cells expressing the gp130 molecule. In cells expressing transmembrane IL-11 Rα and gp130, soluble IL-11 Rα has been shown to act as an IL-11 antagonist.

References:

1. Taga, T. and T. Kishimoto (1997) Annu. Rev. Immuno. **15**:797.
2. Hilton, D. *et al.* (1994) EMBO J. **13**:4765.
3. Davidson, A.J. *et al.* (1997) Stem Cells **15**:119.
4. Curtis, D.J. *et al.* (1997) Blood **90**:4403.

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