

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-11 R α in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-11 R α Met1-Gln367 Accession # Q64385
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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 μ g/mL	Recombinant Mouse IL-11 R α Fc Chimera (Catalog # 490-IR)

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.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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.

BACKGROUND

Mouse interleukin 11 receptor alpha (IL-11 R α), 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 R α 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 R α is closely related to that of IL-6 R α , CNTF R α and the p40 subunit of IL-12, exhibiting 24%, 22% and 16% amino acid sequence identity, respectively. By itself, IL-11 R α binds IL-11 with low affinity. IL-11 R α , together with gp130, forms a functional high-affinity receptor complex for IL-11. The expression of IL-11 R α 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 R α has been shown to mediate IL-11 responsiveness in cells expressing the gp130 molecule. In cells expressing transmembrane IL-11 R α and gp130, soluble IL-11 R α 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.