# Mouse IL-3 Rβ Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF549

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Mouse |
| **Specificity** | Detects mouse IL-3 Rβ in ELISAs and Western blots. In sandwich immunoassays, less than 0.005% cross-reactivity with recombinant mouse (rm) IL-3, rmIL-3 Rα, and recombinant human IL-3 Rα is observed. In Western blots, less than 1% cross-reactivity with recombinant mouse IL-3 Rα is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant mouse IL-3 Rβ<br>His23-Trp440<br>Accession # P26954 |
| **Formulation** | Lyophilized from a 0.2 μm 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 µg/mL | Recombinant Mouse IL-3 Rβ Fc Chimera (Catalog # 549-R3) |
| **Flow Cytometry** | 2.5 µg/$10^6$ cells | DA3 mouse myeloma cell line |
| ***Mouse IL-3 Rβ Sandwich Immunoassay*** | | **Reagent** |
| **ELISA Capture** | 2-8 µg/mL | Mouse IL-3 Rβ Antibody (Catalog # MAB5491) |
| **ELISA Detection** | 0.1-0.4 µg/mL | Mouse IL-3 Rβ Biotinylated Antibody (Catalog # BAF549) |
| **Standard** | | Recombinant Mouse IL-3 Rβ Fc Chimera (Catalog # 549-R3) |

## 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** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

Interleukin 3 (IL-3) is a pleiotropic cytokine produced primarily by activated T cells or mast cells. IL-3 stimulates the proliferation and differentiation of hemopoietic cells including the pluripotent hematopoietic stem cells as well as various lineage-committed cells. The biological effects of IL-3 on the various cell types are mediated by the binding of IL-3 to specific cell surface receptor complexes. The functional high-affinity IL-3 receptor is a heterodimer consisting of a ligand binding α subunit and the β subunit. The α subunit alone binds IL-3 with low affinity. The β subunit is required for the high-affinity binding of IL-3 to the heterodimeric receptor complex. The β subunit has also been found to be a component of the high-affinity receptor complex for IL-5 and GM-CSF and is also referred to as the β common (βc) chain. In the mouse, there are two IL-3 Rβ proteins. The first identified mouse IL-3 Rβ was also called AIC2A and binds IL-3 with low affinity (1). The second mIL-3 Rβ was referred to as AIC2B (2). AIC2B doesn't bind IL-3 and is the homolog of the human IL-3 Rβ. AIC2A was found to be the result of a gene duplication event. Both the α and the β subunits are members of the cytokine receptor superfamily (3).

**References:**


1. Itoh, N. *et al.* (1990) Science **247**:324.
2. Gorman, D.M. *et al.* (1990) Proc. Natl. Acad. Sci. USA **87**:5459.
3. Schrader, J.W. in *Cytokine Reference,* (2001) J.J. Oppenheim and M. Feldmann, eds. Academic Press, New York, p. 1899.




bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449