

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse IL-3 R $\beta$ in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse IL-3 R $\alpha$ or recombinant human IL-3 R $\alpha$ is observed. Cross-reactivity with AIC2B was not tested.                                  |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 130710                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse IL-3 R $\beta$<br>His23-Trp440<br>Accession # P26954                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## 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.

|                                                |                                                                        |
|------------------------------------------------|------------------------------------------------------------------------|
| <b>ELISA Capture (Matched Antibody Pair)</b>   | Optimal dilution of this antibody should be experimentally determined. |
| <b>ELISA Detection (Matched Antibody Pair)</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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  $\alpha$  subunit and the  $\beta$  subunit. The  $\alpha$  subunit alone binds IL-3 with low affinity. The  $\beta$  subunit is required for the high-affinity binding of IL-3 to the heterodimeric receptor complex. The  $\beta$  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  $\beta$  common ( $\beta_c$ ) chain. In the mouse, there are two IL-3 R $\beta$  proteins. The first identified mouse IL-3 R $\beta$  was also called AIC2A and binds IL-3 with low affinity (1). The second mL-3 R $\beta$  was referred to as AIC2B (2). AIC2B doesn't bind IL-3 and is the homolog of the human IL-3 R $\beta$ . AIC2A was found to be the result of a gene duplication event. Both the  $\alpha$  and the  $\beta$  subunits are members of the cytokine receptor superfamily (3).

## PRODUCT SPECIFIC NOTICES

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