

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-3 R $\alpha$ /CD123 in Western blots. In Western blots, less than 5% cross-reactivity with recombinant human (rh) IL-1 sRI, rhIL-1 sRII, rhIL-2 sR $\beta$ , rhIL-2 sR $\gamma$ , rhIL-5 sR $\alpha$ , and rhIL-10 sR is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-3 R $\alpha$ /CD123 Extracellular domain
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human IL-3 R $\alpha$ /CD123 (Catalog # 301-R3)

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Interleukin 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 human 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 does not bind IL-3 by itself but 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. Both the  $\alpha$  and the  $\beta$  subunits are members of the cytokine receptor superfamily.

#### References:

1. Ogorochi, T. and A. Miyajima (1994) in *Guidebook to Cytokines and Their Receptors*, N.A. Nicola, ed. Oxford University, New York p. 40.