

**DESCRIPTION**

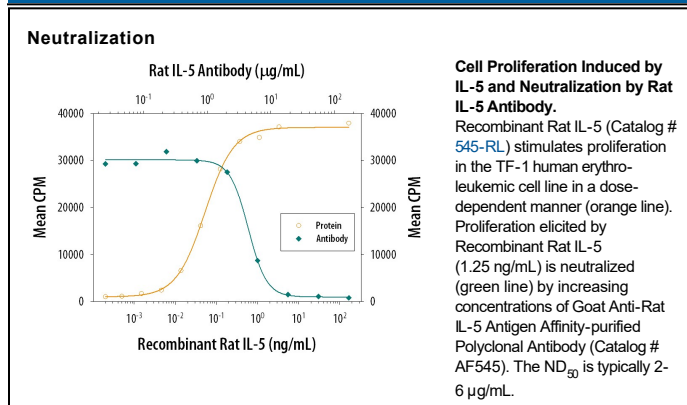
<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat IL-5 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IL-5 is observed and 5% cross-reactivity with recombinant human IL-5 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant rat IL-5 Met20-Val132 Accession # Q08125
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Rat IL-5 (Catalog # 545-RL)
<b>Immunocytochemistry</b>	5-15 µg/mL	Immersion fixed rat splenocytes
<b>Neutralization</b>	Measured by its ability to neutralize IL-5-induced proliferation in the TF-1 human erythro-leukemic cell line. Kitamura, T. <i>et al.</i> (1989) <i>J. Cell Physiol.</i> <b>140</b> :323. The Neutralization Dose (ND <sub>50</sub> ) is typically 2-6 µg/mL in the presence of 1.25 ng/mL Recombinant Rat IL-5.	

**DATA**



**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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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 5 is a T cell-derived factor that promotes the proliferation, differentiation and activation of eosinophils. In mice, IL-5 has also been shown to be a growth and differentiation factor for B cells. Various names previously used to describe IL-5 include: T cell replacing factor (TRF), B cell growth factor II (BCGFII), B cell differentiation factor  $\mu$  (BCDF  $\mu$ ), eosinophil differentiation factor (EDF) and eosinophil colony-stimulating factor (Eo-CSF). Biologically active IL-5 is a disulfide-linked homodimer. The cDNAs for murine, human and rat IL-5 encode precursor proteins with signal peptides that are cleaved to form mature proteins containing 113, 115, and 113 amino acid residues, respectively. Rat IL-5 is 94% and 70% identical to mouse and human IL-5, respectively. The genes for human and mouse IL-5 have been mapped to chromosome 5 and chromosome 11, respectively; closely linked to the genes for IL-3, IL-4 and GM-CSF.

IL-5 exerts its activity on target cells by binding to specific cell surface receptors. The functional high-affinity receptor for human IL-5 has been shown to be composed of a low-affinity IL-5 binding  $\alpha$ -subunit and a non-binding common  $\beta$ -subunit that is shared with the high-affinity receptors for GM-CSF and IL-3.

#### References:

1. Karlen, S. *et al.* (1998) Intern. Rev. Immunol. **16**:227.
2. Lalani, T. *et al.* (1999) Annals Allergy Asthma Immunol. **82**:317.
3. Takatsa, K. (1998) Cytokine and Growth Factor Reviews **9**:25.