

## DESCRIPTION

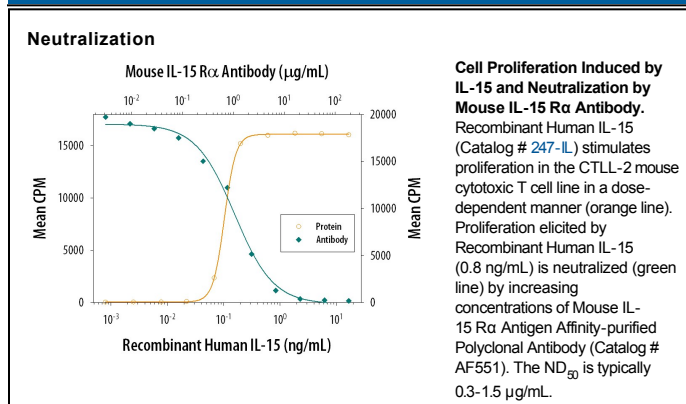
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-15 R $\alpha$ in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) IL-15 R $\alpha$ is observed and less than 1% cross-reactivity with rhIL-2 R $\alpha$ , recombinant mouse (rm) IL-2 R $\beta$ , and rmIL-2 R $\gamma$ is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse IL-15 R $\alpha$ Gly33-Lys205 Accession # Q60819
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Mouse IL-15 R $\alpha$ Fc Chimera (Catalog # 551-MR)
<b>Flow Cytometry</b>	2.5 $\mu$ g/10 <sup>6</sup> cells	EL-4 mouse lymphoblast cell line
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Neutralization</b>	Measured by its ability to neutralize IL-15-induced proliferation in the CTLL-2 mouse cytotoxic T cell line. Gearing, A.J.H. and C.B. Bird (1987) in <i>Lymphokines and Interferons, A Practical Approach</i> . Clemens, M.J. <i>et al.</i> (eds): IRL Press. 276. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.3-1.5 $\mu$ g/mL in the presence of 0.8 ng/mL Recombinant Human IL-15.	

## 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 15 receptor alpha (IL-15 R $\alpha$ ) is a high affinity receptor that specifically binds IL-15 with high affinity and associates as a heterotrimer with the IL-2 receptors beta and gamma subunits to initiate signal transduction. IL-15 R $\alpha$  is expressed on a wide variety of T cells and B cells as well as non-lymphoid cells. IL-15 R $\alpha$  is a 58-60 kDa protein that shares structural similarities to the IL-2 R $\alpha$  protein. IL-15 R $\alpha$  and IL-2 R $\alpha$  genes also share similar intron-exon organization and are closely linked on human chromosome 10p14-p15. Human IL-15 R $\alpha$  shares 45% amino acid (aa) homology with the mouse form of the receptor. Signaling of IL-15 can occur in one of three ways; through the heterotrimeric complex of IL-15 R $\alpha$ , IL-2 R $\beta$ , and IL-2 R $\gamma$ , through the heterodimeric complex of IL-2 receptors beta and gamma common, through a novel 60-65 kDa IL-15 RX subunit found on mast cells. The binding of IL-15 to IL-15 R $\alpha$  has been reported to antagonize the TNF- $\alpha$ -mediated apoptosis in fibroblasts by competing with TNF RI for TRAF2 binding.

## References:

1. Anderson, D.M. *et al.* (1995) J. Biol. Chem. **270**:29862.
2. Bulfone-Paus, S. *et al.* (1999) FASEB **13**:1575.
3. Waldemann, T.A. and Y. Tagaya (1999) Ann. Rev. Immunol. **17**:19.
4. Dubois, S. *et al.* (1999) J. Biol. Chem. **274**:26978.