

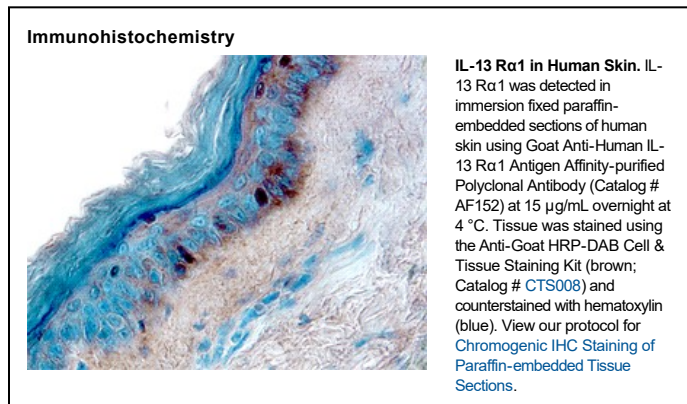
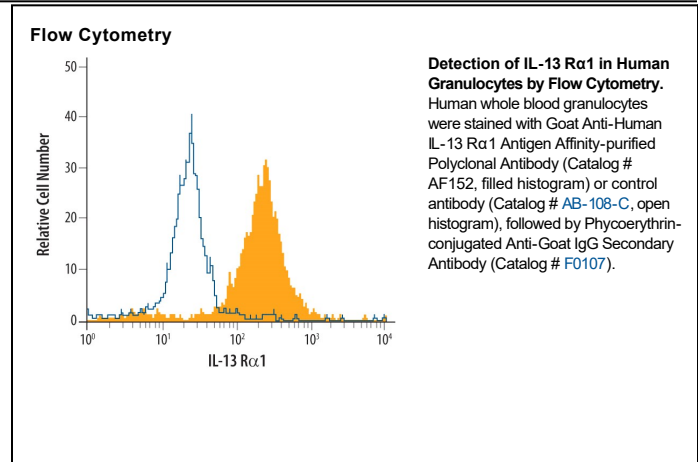
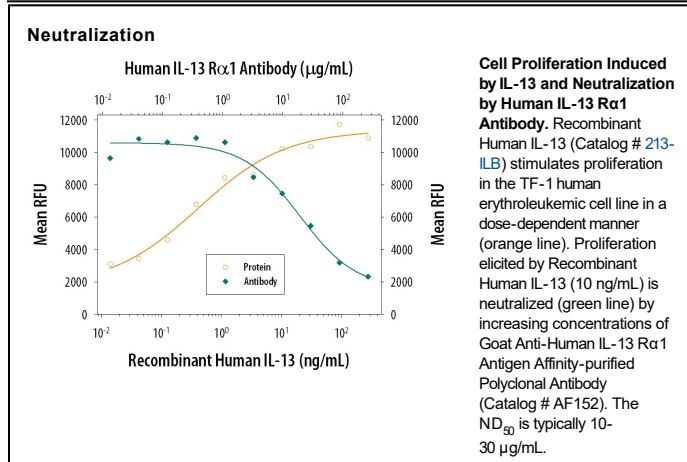
DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-13 R $\alpha$ 1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human (rh) IL-13 R $\alpha$ 2, recombinant mouse IL-13 R $\alpha$ 1, rhIL-5 R $\alpha$ , rhIL-5 R $\beta$ , rhIL-4 R, and rhIL-9 R is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-13 R $\alpha$ 1 Ala27-Thr343 (Thr130Ile) Accession # Q5JSL4
<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 either lyophilized or 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 Human IL-13 R $\alpha$ 1 Fc Chimera (Catalog # 146-IR)
<b>Flow Cytometry</b>	2.5 $\mu$ g/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	5-15 $\mu$ g/mL	See Below
<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-13-induced proliferation in the TF-1 human erythroleukemic cell line. Kitamura, T. <i>et al.</i> (1989) J. Cell Physiol. 140:323. The Neutralization Dose (ND <sub>50</sub> ) is typically 10-30 $\mu$ g/mL in the presence of 10 ng/mL Recombinant Human IL-13.	

## 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>	<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**

Two type 1 membrane proteins belonging to the hemopoietin receptor family have been cloned and shown to bind IL-13 with differing affinities. The lower affinity IL-13 binding protein, previously designated IL-13 R $\alpha$ , IL-13 R $\alpha'$  or NR4, is now referred to as IL-13 R $\alpha$ 1. The high-affinity IL-13 binding protein, previously also designated IL-13 R or IL-13 R $\alpha'$ , is now referred to as IL-13 R $\alpha$ 2. The human IL-13 R $\alpha$ 1 was originally cloned based on sequence homology to the mouse IL-13 R $\alpha$ 1. The IL-13 R $\alpha$ 1 cDNA encodes a 427 amino acid (aa) residue precursor protein with a putative 21 aa residue signal peptide, a 324 aa residue extracellular domain, a 23 aa residue transmembrane region and a 59 aa residue cytoplasmic tail. Human and mouse IL-13 R $\alpha$ 1 share 76% aa sequence identity. The extracellular domain of IL-13 R $\alpha$ 1 is also closely related to that of IL-13 R $\alpha$ 2. IL-13 R $\alpha$ 1 has been shown to combine with the IL-4 R $\alpha$  to form a high-affinity receptor complex capable of transducing an IL-13-dependent proliferative signal. The role of IL-13 R $\alpha$ 2 in IL-13 signaling remains to be elucidated.

**References:**

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4. Hilton, D.J. *et al.* (1996) Proc. Natl. Acad. Sci. USA **93**:497.
5. Zhang, J.G. *et al.* (1997) J. Biol. Chem. **272**:9474.