

## DESCRIPTION

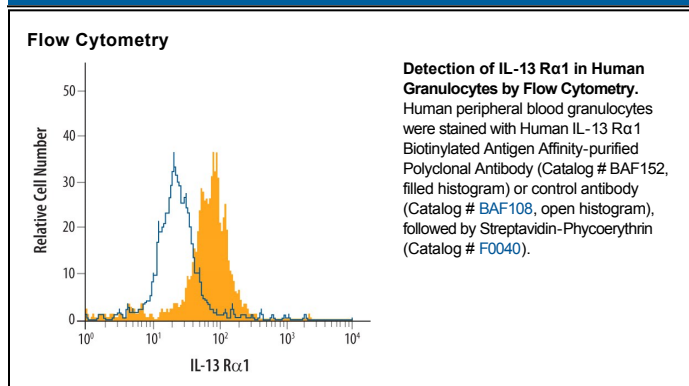
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-13 R $\alpha$ 1 in ELISAs and Western blots. In sandwich ELISAs, less than 1% cross-reactivity with recombinant human (rh) IL-13 R $\alpha$ 2, recombinant mouse (rm) IL-13 R $\alpha$ , rhIL-4 R, rhIL-5 R $\alpha$ , and rhIL-9 R is observed.
<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>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-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>Human IL-13 R<math>\alpha</math>1 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 $\mu$ g/mL	Human IL-13 R $\alpha$ 1 Antibody (Catalog # MAB146)
<b>ELISA Detection</b>	0.1-0.4 $\mu$ g/mL	Human IL-13 R $\alpha$ 1 Biotinylated Antibody (Catalog # BAF152)
<b>Standard</b>		Recombinant Human IL-13 R $\alpha$ 1 Fc Chimera (Catalog # 146-IR)

## 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.
<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:

1. Caput, D. *et al.* (1996) *J. Biol. Chem.* **271**:16921.
2. Donaldson, D.D. *et al.* (1998) *J. Immunol.* **161**:2317.
3. Aman, M.J. *et al.* (1996) *J. Biol. Chem.* **271**:29265.
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.