

#### 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, no cross-reactivity with recombinant mouse IL-13 R $\alpha$ 1, recombinant human (rh) IL-13 R $\alpha$ 2, rhIL-4 R, rhIL-5 R $\beta$ , or rhIL-9 R is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 419718
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-13 R $\alpha$ 1 Ala27-Thr343 Accession # P78552
<b>Conjugate</b>	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### 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>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Human peripheral blood granulocytes

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</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) precursor protein with a putative 21 aa signal peptide, a 324 aa extracellular domain, a 23 aa transmembrane region and a 59 aa 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.

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