

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse IL-13 R $\alpha$ 2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human (rh) IL-13 R $\alpha$ 2 is observed and less than 1% cross-reactivity with rhIL-5R $\alpha$ , rhIL-5      |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse IL-13 R $\alpha$ 2<br>Leu22-Lys334<br>Accession # O88786                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## 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> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Two type1 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 mouse IL-13 R $\alpha$ 2 cDNA encodes a 383 amino acid (aa) residue precursor protein with a putative 21 aa residue signal peptide, a 313 residue extracellular domain, a 22 aa residue transmembrane region, and a 27 aa residue cytoplasmic tail. Human and mouse IL-13 R $\alpha$ 2 share 59% aa sequence identity. The extracellular domain of IL-13 R $\alpha$ 2 is also closely related to that of IL-13 R $\alpha$ 1. However, the cytoplasmic domain of IL-13 R $\alpha$ 2 lacks the box 1 and box 2 signaling motif and is much shorter than that of IL-13 R $\alpha$ 1, suggesting that the two receptors are functionally distinct. IL-13 R $\alpha$ 1 has been shown to combine with IL-4 R $\alpha$  to form a high-affinity receptor complex capable of transducing both an IL-4-dependent and an IL-13-dependent proliferative signal. The role of IL-13 R $\alpha$ 2 in IL-13 signaling remains to be elucidated. The amino-terminal 27 amino acid residues of mouse IL-13 R $\alpha$ 2 are identical to that of a soluble mouse IL-13 binding protein purified from mouse serum and urine. Recombinant mouse IL-13 R $\alpha$ /Fc chimera has been shown to bind IL-13 with high affinity and is a potent IL-13 antagonist.

## PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.