

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-13 R α 2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human (rh) IL-13 R α 2 is observed and less than 1% cross-reactivity with rhIL-5R α , rhIL-5R β , rhIL-9 R, and rhIL-4 R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-13 R α 2 Leu22-Lys334 Accession # O88786
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

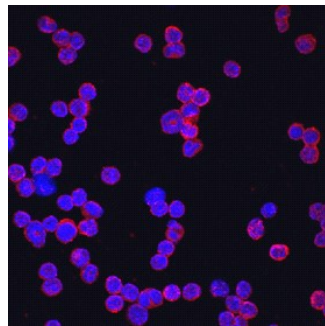
APPLICATIONS

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
Western Blot	0.1 μ g/mL	Recombinant Mouse IL-13 R α 2 Fc Chimera (Catalog # 539-IR)
Immunocytochemistry	5-15 μ g/mL	See Below
Immunohistochemistry	5-15 μ g/mL	See Below

DATA

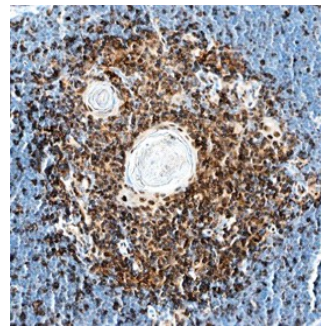
Immunocytochemistry



IL-13 R α 2 in Mouse Splenocytes.

IL-13 R α 2 was detected in immersion fixed mouse splenocytes using Mouse IL-13 R α 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF539) at 10 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunohistochemistry



IL-13 R α 2 in Mouse Thymus.

IL-13 R α 2 was detected in perfusion fixed frozen sections of mouse thymus using Goat Anti-Mouse IL-13 R α 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF539) at 10 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in lymphocytes. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 α , IL-13 R α' or NR4, is now referred to as IL-13 R α 1. The high affinity IL-13 binding protein, previously also designated IL-13 R or IL-13 R α' , is now referred to as IL-13 R α 2.

The mouse IL-13 R α 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 α 2 share 59% aa sequence identity. The extracellular domain of IL-13 R α 2 is also closely related to that of IL-13 R α 1. However, the cytoplasmic domain of IL-13 R α 2 lacks the box 1 and box 2 signaling motif and is much shorter than that of IL-13 R α 1, suggesting that the two receptors are functionally distinct. IL-13 R α 1 has been shown to combine with IL-4 R α 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 α 2 in IL-13 signaling remains to be elucidated. The amino-terminal 27 amino acid residues of mouse IL-13 R α 2 are identical to that of a soluble mouse IL-13 binding protein purified from mouse serum and urine. Recombinant mouse IL-13 R α /Fc chimera has been shown to bind IL-13 with high affinity and is a potent IL-13 antagonist.

References:

1. Donaldson, D.D. *et al.* (1998) *J. Immunol.* **161**:2317.
2. Chomarat, P. and J. Banchereau (1998) *Int. Rev. Immunol.* **17**:1.