

DESCRIPTION

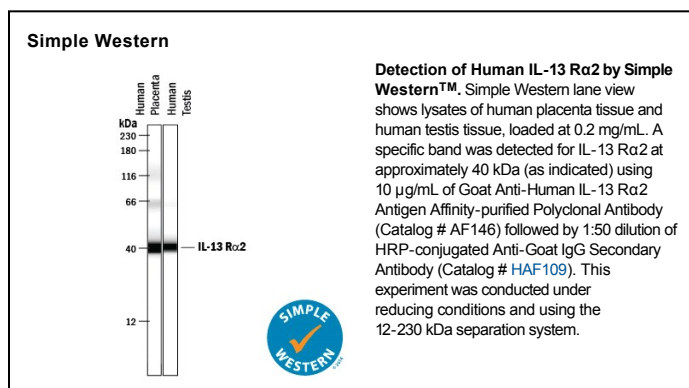
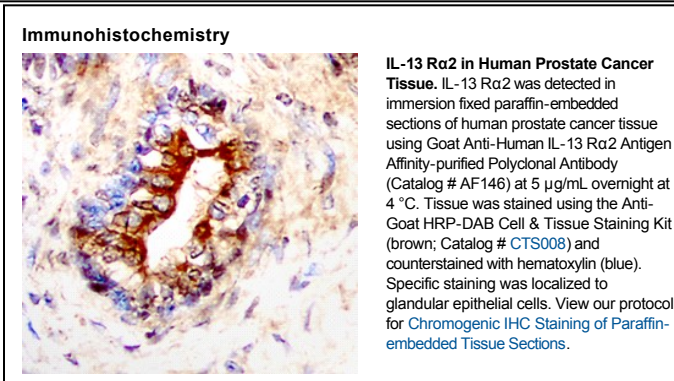
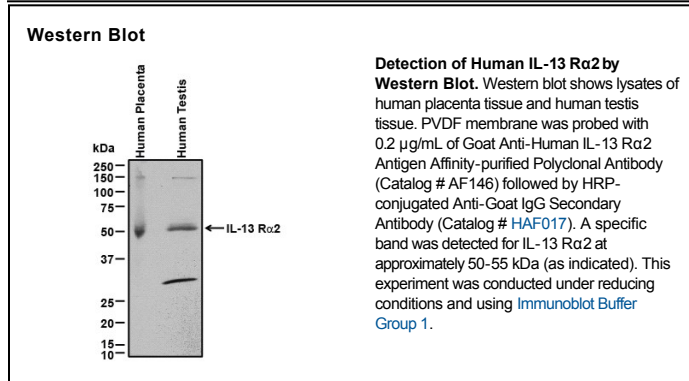
Species Reactivity	Human
Specificity	Detects human IL-13 R α 2 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant mouse IL-13 R α 2 is observed and less than 1% cross-reactivity with recombinant human IL-13 R α 1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IL-13 R α 2 Cys22-Leu342 Accession # Q14627
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
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	0.2 μ g/mL	See Below
Flow Cytometry	2.5 μ g/10 ⁶ cells	A375 human melanoma cell line
Immunohistochemistry	5-15 μ g/mL	See Below
Simple Western	10 μ g/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Blockade of Receptor-ligand Interaction	In a functional ELISA, 2-6 μ g/mL of this antibody will block 50% of the binding of 100 ng/mL of Recombinant Human IL-13 (Catalog # 213-ILB) to immobilized Recombinant Human IL-13 R α 2 Fc Chimera (Catalog # 614-INS) coated at 4 μ g/mL (100 μ L/well). At 40 μ g/mL, this antibody will block >90% of the binding.	

DATA



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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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 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 α , IL-13 R α^1 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^2 , is now referred to as IL-13 R α 2. Human IL-13 R α 2 was originally cloned from the Caki-1 human renal carcinoma cell line. The IL-13 R α 2 cDNA encodes a 380 amino acid (aa) residue precursor protein with a putative 26 aa residue signal peptide, a 317 residue extracellular domain, a 20 aa residue transmembrane region and a 17 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 17 aa residue cytoplasmic domain of IL-13 R α 2 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 the IL-4 R to form a high-affinity receptor complex capable of transducing 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 aa residues of the human and mouse IL-13 R α 2 are nearly identical to that of a soluble mouse IL-13 binding protein purified from mouse serum and urine.

References:

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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.