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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# IL-13R $\alpha$ 1 (h): 293T Lysate: sc-175871

## BACKGROUND

The Th2 cytokine interleukin-13 (IL-13) plays a critical role in allergen-induced airway hyper-responsiveness (AHR). Two different receptors exist for IL-13, designated IL-13R $\alpha$ 1 and 2. IL-13R $\alpha$ 1 exists as a heterodimer of IL-13R $\alpha$ 1 and IL-4R $\alpha$  as a signaling subunit, whereas IL-13R $\alpha$ 2 acts as a decoy receptor for IL-13. Furthermore, TNF $\alpha$  or IL-4 stimulation induces IL-13R $\alpha$ 2 upregulation, while IL-13R $\alpha$ 1 is constitutively expressed. Cell surface localization of IL-13R $\alpha$ 2 abrogates IL-13 signaling, thus IL-13 induced translocation of the receptor from the cytoplasm provides a mechanism for negative-feedback of IL-13 signaling. IL-13R $\alpha$ 1 expression is predominant in B cells, monocytes and T cells, whereas IL-13R $\alpha$ 2 expression is highest in glioma cells.

## REFERENCES

- Guo, J., et al. 1997. Chromosome mapping and expression of the human interleukin-13 receptor. *Genomics* 42: 141-145.
- Graber, P., et al. 1998. The distribution of IL-13 receptor  $\alpha$ 1 expression on B cells, T cells and monocytes and its regulation by IL-13 and IL-4. *Eur. J. Immunol.* 28: 4286-4298.
- Wu, A.H., et al. 2002. Molecular cloning of the rat IL-13  $\alpha$ 2 receptor cDNA and its expression in rat tissues. *J. Neurooncol.* 59: 99-105.
- Park, J.W., et al. 2003. Respiratory syncytial virus-induced airway hyper-responsiveness is independent of IL-13 compared with that induced by allergen. *J. Allergy Clin. Immunol.* 112: 1078-1087.
- Yasunaga, S., et al. 2003. The negative-feedback regulation of the IL-13 signal by the IL-13 receptor  $\alpha$ 2 chain in bronchial epithelial cells. *Cytokine* 24: 293-303.
- Yoshikawa, M., et al. 2003. TNF $\alpha$  and IL-4 regulate expression of IL-13 receptor  $\alpha$ 2 on human fibroblasts. *Biochem. Biophys. Res. Commun.* 312: 1248-1255.

## CHROMOSOMAL LOCATION

Genetic locus: IL13RA1 (human) mapping to Xq24.

## PRODUCT

IL-13R $\alpha$ 1 (h): 293T Lysate represents a lysate of human IL-13R $\alpha$ 1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

IL-13R $\alpha$ 1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive IL-13R $\alpha$ 1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

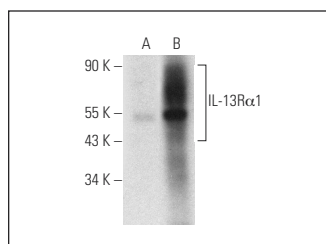
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IL-13R $\alpha$ 1 (D-2): sc-398831 is recommended as a positive control antibody for Western Blot analysis of enhanced human IL-13R $\alpha$ 1 expression in IL-13R $\alpha$ 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



IL-13R $\alpha$ 1 (D-2): sc-398831. Western blot analysis of IL-13R $\alpha$ 1 expression in non-transfected: sc-117752 (A) and human IL-13R $\alpha$ 1 transfected: sc-175871 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.