

IL-10R α (h): 293 Lysate: sc-114689

BACKGROUND

The IL-10 receptor, IL-10R, is a member of the class II subgroup of the cytokine receptor family and exhibits structural similarity to the interferon receptor. IL-10R is expressed in B cells and T helper cells, as well as in LPS-induced mouse fibroblasts. Overall, mouse IL-10R and human IL-10R share 60% sequence identity at the protein level. Stimulation with IL-10 leads to phosphorylation of JAK1 and Tyk 2 tyrosine kinases. The activated kinases phosphorylate the two tyrosine residues (Tyr 446 and Tyr 496) in the cytoplasmic domain of IL-10R α . The phosphorylation of these two residues are required for proper function of IL-10R and activation of IL-10E1 signaling. IL-10R β is ubiquitously expressed and, in addition to forming the IL-10 heterodimeric receptor, it forms a heterodimeric receptor with an IL-22R subunit and an IL-28R subunit. IL-10R is constitutively expressed on human natural killer (NK) cells and the direct binding of IL-10 potentiates cytokine production by human NK cells.

REFERENCES

1. Ho, A.S., et al. 1993. A receptor for Interleukin-10 is related to interferon receptors. *Proc. Natl. Acad. Sci. USA* 90: 11267-11271.
2. Weber-Nordt, R.M., et al. 1994. Lipopoly-saccharide-dependent induction of IL-10 receptor expression on murine fibroblasts. *J. Immunol.* 153: 3734-3744.
3. Ho, A.S., et al. 1995. Functional regions of the mouse interleukin-10 receptor cytoplasmic domain. *Mol. Cell. Biol.* 15: 5043-5053.
4. Tan, J.C., et al. 1995. Characterization of recombinant extracellular domain of human interleukin-10 receptor. *J. Biol. Chem.* 270: 12906-12911.
5. Carson, W.E., et al. 1995. The functional characterization of interleukin-10 receptor expression on human natural killer cells. *Blood* 85: 3577-3585.
6. Corinti, S., et al. 2001. Regulatory activity of autocrine IL-10 on dendritic cell functions. *J. Immunol.* 166: 4312-4318.
7. Vilcek, J. 2002. Novel interferons. *Nat. Immunol.* 4: 8-9.

CHROMOSOMAL LOCATION

Genetic locus: IL10RA (human) mapping to 11q23.3.

PRODUCT

IL-10R α (h): 293 Lysate represents a lysate of human IL-10R α transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

IL-10R α (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive IL-10R α antibodies. Recommended use: 10-20 μ l per lane.

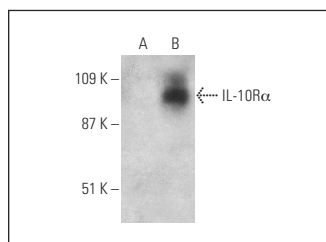
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

IL-10R α (A-3): sc-365374 is recommended as a positive control antibody for Western Blot analysis of enhanced human IL-10R α expression in IL-10R α transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

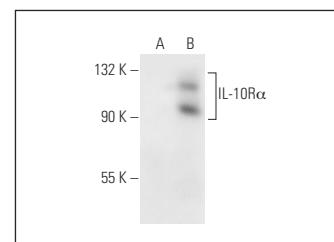
RECOMMENDED SUPPORT REAGENTS

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

DATA



IL-10R α (A-3) HRP: sc-365374 HRP. Direct western blot analysis of IL-10R α expression in non-transfected: sc-117752 (A) and human IL-10R α transfected: sc-114689 (B) 293 whole cell lysates.



IL-10R α (A-3): sc-365374. Western blot analysis of IL-10R α expression in non-transfected: sc-110760 (A) and human IL-10R α transfected: sc-114689 (B) 293 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.