

IL-27R α (h): 293T Lysate: sc-114657

BACKGROUND

IL-27 is a heterodimeric cytokine that consists of EBI3, an IL-12p40-related protein, and p28, an IL-12p35-related polypeptide. IL-27 triggers expansion of antigen-specific naive CD4⁺ T cells and promotes polarization towards a Th1 phenotype with expression of γ -interferon. IL-27 contributes to the development of an adaptive immune response through its action on CD4⁺ T cells, and also directly acts on cells of the innate immune system. IL-27 protein levels increase upon activation of antigen-presenting cells. IL-27 protein induces orphan cytokine receptor IL-27R (WSX-1)-dependent clonal expansion of naive but not memory CD4⁺ T cells. IL-27 signaling through IL-27R and gp130 also induces phosphorylation of Stat1-5.

REFERENCES

1. Pflanz, S., et al. 2002. IL-27, a heterodimeric cytokine composed of EBI3 and p28 protein, induces proliferation of naive CD4⁺ T cells. *Immunity* 16: 779-790.
2. Bossi, G., et al. 2003. IL-27 defect in the biogenesis and movement of secretory lysosomes in cytotoxic T lymphocytes causes immunodeficiency. *Pigment Cell Res.* 16: 585-586.
3. Lucas, S., et al. 2003. IL-27 regulates IL-12 responsiveness of naive CD4⁺ T cells through Stat1-dependent and -independent mechanisms. *Proc. Natl. Acad. Sci. USA* 100: 15047-15052.
4. Villarino, A.V., et al. 2004. Understanding the pro- and anti-inflammatory properties of IL-27. *J. Immunol.* 173: 715-720.
5. Goldberg, R., et al. 2004. Suppression of ongoing adjuvant-induced arthritis by neutralizing the function of the p28 subunit of IL-27. *J. Immunol.* 173: 1171-1178.
6. Yoshimoto, T., et al. 2004. Induction of IgG_{2a} class switching in B cells by IL-27. *J. Immunol.* 173: 2479-2485.
7. Artis, D., et al. 2004. The IL-27 receptor (WSX-1) is an inhibitor of innate and adaptive elements of type 2 immunity. *J. Immunol.* 173: 5626-5634.
8. Holscher, C., et al. 2005. The IL-27 receptor chain WSX-1 differentially regulates antibacterial immunity and survival during experimental tuberculosis. *J. Immunol.* 174: 3534-3544.

CHROMOSOMAL LOCATION

Genetic locus: IL27RA (human) mapping to 19p13.12.

PRODUCT

IL-27R α (h): 293T Lysate represents a lysate of human IL-27R α transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

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.

APPLICATIONS

IL-27R α (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive IL-27R α antibodies. Recommended use: 10-20 μ l per lane.

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

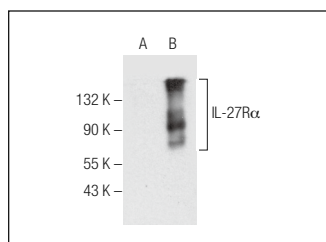
IL-27R α (F-7): sc-376309 is recommended as a positive control antibody for Western Blot analysis of enhanced human IL-27R α expression in IL-27R α transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

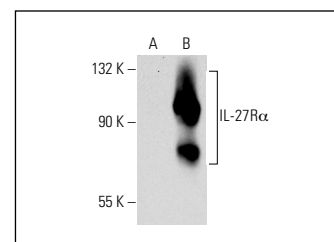
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG 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-27R α (F-7): sc-376309. Western blot analysis of IL-27R α expression in non-transfected: sc-117752 (A) and human IL-27R α transfected: sc-114657 (B) 293T whole cell lysates.



IL-27R α (J126): sc-80078. Western blot analysis of IL-27R α expression in non-transfected: sc-117752 (A) and human IL-27R α transfected: sc-114657 (B) 293T whole cell lysates.

PROTOCOLS

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