

IL-27R α (H-250): sc-99083

BACKGROUND

IL-27 is a heterodimeric cytokine that consists of EB13, an IL-12p40-related protein and p28, a 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

- Pflanz, S., et al. 2002. IL-27, a heterodimeric cytokine composed of EB13 and p28 protein, induces proliferation of naive CD4⁺ T cells. *Immunity* 16: 779-790.
- 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.
- 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.
- Villarino, A.V., et al. 2004. Understanding the pro- and anti-inflammatory properties of IL-27. *J. Immunol.* 173: 715-720.
- 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.
- Yoshimoto, T., et al. 2004. Induction of IgG_{2a} class switching in B cells by IL-27. *J. Immunol.* 173: 2479-2485.
- 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.
- 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.

SOURCE

IL-27R α (H-250) is a rabbit polyclonal antibody raised against amino acids 91-340 mapping within an internal region of IL-27R α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

IL-27R α (H-250) is recommended for detection of IL-27R α of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-27R α siRNA (h): sc-60836, IL-27R α shRNA Plasmid (h): sc-60836-SH and IL-27R α shRNA (h) Lentiviral Particles: sc-60836-V.

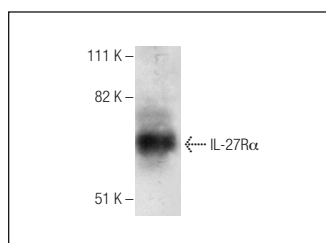
Molecular Weight of IL-27R α : 69 kDa.

Positive Controls: Human spleen extract: sc-363779.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IL-27R α (H-250): sc-99083. Western blot analysis of IL-27R α expression in human spleen tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
Satisfaction
Guaranteed

Try **IL-27R α (F-7): sc-376309** or **IL-27R α (J126): sc-80078**, our highly recommended monoclonal alternatives to IL-27 α (H-250).