IL-21R (h): 293T Lysate: sc-175934



The Power to Question

BACKGROUND

The IL-21 receptor (also designated IL-21R, NILR or novel interleukin receptor) is a type I cytokine receptor that forms a complex with the cytokine receptor γ chain, $\gamma(c)$, and mediates IL-21 signaling. IL-21R is present on the surface of natural killer, B and T cell populations with high levels in spleen and thymus. IL-21 and IL-21R influence lymphoid proliferation and early lymphoid development in the transition between innate and adaptive immunity. Tumor necrosis factor (TNF) upregulates IL-21R, and combinations of TNF and IL-21 can have synergistic effects on myeloma cell proliferation through pathways involving phosphorylation of JAK1, Stat3 and ERK 1/2. The human IL-21R gene maps to chromosome 16p11 and encodes a 538 amino acid protein that is closely related to human IL2RB and shares 62% sequence identity to mouse II21r.

REFERENCES

- Parrish-Novak, J., et al. 2000. Interleukin-21 and its receptor are involved in NK cell expansion and regulation of lymphocyte function. Nature 408: 57-63.
- Asao, H., et al. 2001. Cutting edge: the common γ-chain is an indispensable subunit of the IL-21 receptor complex. J. Immunol. 167: 1-5.
- 3. Vosshenrich, C.A. and Di Santo, J.P. 2001. Cytokines: IL-21 joins the γ_c-dependent network? Curr. Biol. 11: R175-R177.
- 4. Habib, T., et al. 2002. The common γ chain (γ_c) is a required signaling component of the IL-21 receptor and supports IL-21-induced cell proliferation via JAK3. Biochemistry 41: 8725-8731.
- Kasaian, M.T., et al. 2002. IL-21 limits NK cell responses and promotes antigen-specific T cell activation: a mediator of the transition from innate to adaptive immunity. Immunity 16: 559-569.
- 6. Ueda, C., et al. 2002. The gene for interleukin-21 receptor is the partner of BCL6 in t(3;16)(q27;p11), which is recurrently observed in diffuse large B cell lymphoma. Oncogene 21: 368-376.
- Brenne, A.T., et al. 2002. Interleukin-21 is a growth and survival factor for human myeloma cells. Blood 99: 3756-3762.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605383. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

enetic locus: IL21R (human) mapping to 16p12.1.

PRODUCT

IL-21R (h): 293T Lysate represents a lysate of human IL-21R 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.

APPLICATIONS

IL-21R (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive IL-21R 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com