SANTA CRUZ BIOTECHNOLOGY, INC.

IL-14 (16C5): sc-80994

BACKGROUND

IL-14 (high-molecular-weight B cell growth factor or HMW-BCGF) is a protein that plays a significant role in the rapid proliferation of aggressive B cell type non-Hodgkin's lymphoma. IL-19 and IL-20 are IL-10-related cytokines. IL-19 is involved in melanoma differentiation, and IL-20 plays an essential role in epidermal function and psoriasis. Like other interleukin molecules, IL-21 is a small secreted molecule and it has potent effects on lymphoid cells. IL-21 is most closely related to IL-2 and IL-15 and has a role in the proliferation and maturation of natural killer cell populations from bone marrow, in the proliferation of mature B cell populations co-stimulated with anti-CD40, and in the proliferation of T cells co-stimulated with anti-CD3.

REFERENCES

1. Ford, R., Tamayo, A., Martin, B., Niu, K., Claypool, K., Cabanillas, F. and Ambrus, J., Jr. 1995. Identification of B cell growth factors (interleukin-14; high molecular weight-B cell growth factors) in effusion fluids from patients with aggressive B cell lymphomas. Blood 86: 283-293.
2. Gallagher, G., Dickensheets, H., Eskdale, J., Izotova, L.S., Mirochnitchenko, O.V., Peat, J.D., Vazquez, N., Pestka, S., Donnelly, R.P. and Kotenko, S.V. 2000. Cloning, expression and initial characterization of interleukin-19 (IL-19), a novel homologue of human interleukin-10 (IL-10). Genes Immun. 1: 442-450.
3. Blumberg, H., Conklin, D., Xu, W.F., Grossmann, A., Brender, T., Carollo, S., Eagan, M., Foster, D., Haldeman, B.A., Hammond, A., Haugen, H., Jelinek, L., Kelly, J.D., Madden, K., Maurer, M.F., et al. 2001. Interleukin-20: discovery, receptor identification and role in epidermal function. Cell 104: 9-19.
4. Vosshenrich, C.A. and Di, Santo, J.P. 2001. Cytokines: IL-21 joins the γc-dependent network? Curr. Biol. 11: R175-R177.
5. Parrish-Novak, J., Dillon, S.R., Nelson, A., Hammond, A., Sprecher, C., Gross, J.A., Johnston, J., Madden, K., Xu, W., West, J., Schrader, S., Burkhead, S., Heipel, M., Brandt, C., et al. Interleukin-21 and its receptor are involved in NK cell expansion and regulation of lymphocyte function. Nature 408: 57-63.

CHROMOSOMAL LOCATION

Genetic locus: TXLNA (human) mapping to 1p35.1; Txlna (mouse) mapping to 4 D2.2.

SOURCE

IL-14 (16C5) is a mouse monoclonal antibody raised against recombinant IL-14 of human origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

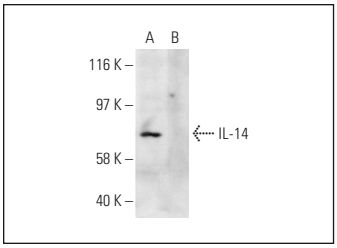
IL-14 (16C5) is available conjugated to agarose (sc-80994 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-80994 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-80994 PE), fluorescein (sc-80994 FITC), Alexa Fluor® 488 (sc-80994 AF488), Alexa Fluor® 546 (sc-80994 AF546), Alexa Fluor® 594 (sc-80994 AF594) or Alexa Fluor® 647 (sc-80994 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-80994 AF680) or Alexa Fluor® 790 (sc-80994 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IL-14 (16C5) is recommended for detection of IL-14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of IL-14: 53 kDa.

DATA



IL-14 (16C5): sc-80994. Western blot analysis of *E. coli* cells transfected with GST-truncated human IL-14 expression vector (**A**) and GST-IRS-1 fragment expression vector (**B**).

SELECT PRODUCT CITATIONS

1. Bodine, B.G., Bennion, B.G., Leatham, E., Jimenez, F.R., Wright, A.J., Jergensen, Z.R., Erickson, C.J., Jones, C.M., Johnson, J.P., Knapp, S.M. and Reynolds, P.R. 2014. Conditionally induced RAGE expression by proximal airway epithelial cells in transgenic mice causes lung inflammation. Respir. Res. 15: 133.

RESEARCH USE

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