SANTA CRUZ BIOTECHNOLOGY, INC.

IL-10Rα (C-20): sc-984

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-10Rα. The phosphorylation of these two residues are required for proper function of IL-10R and activation of IL-10E1 signaling. IL-10Rβ is ubiquitously expressed and, in addition to forming the IL-10 hetero-dimeric 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.

CHROMOSOMAL LOCATION

Genetic locus: IL10RA (human) mapping to 11q23.3; Il10ra (mouse) mapping to 9 A5.2.

SOURCE

IL-10Rα (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-10Rα of human origin.

PRODUCT

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

IL-10Rα (C-20) is available conjugated phycoerythrin (sc-984 PE, 200 µg/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-984 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-10Rα (C-20) is recommended for detection of IL-10Rα of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IL-10Rα (C-20) is also recommended for detection of IL-10Rα in additional species, including bovine and porcine.

Suitable for use as control antibody for IL-10Rα siRNA (h): sc-35646, IL-10Rα siRNA (m): sc-72018, IL-10Rα shRNA Plasmid (h): sc-35646-SH, IL-10Rα shRNA Plasmid (m): sc-72018-SH, IL-10Rα shRNA (h) Lentiviral Particles: sc-35646-V and IL-10Rα shRNA (m) Lentiviral Particles: sc-72018-V.

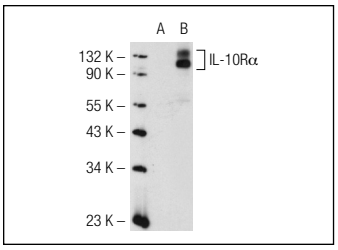
Molecular Weight of IL-10Rα: 63 kDa.

Molecular Weight of glycosylated IL-10Rα: 90-110 kDa.

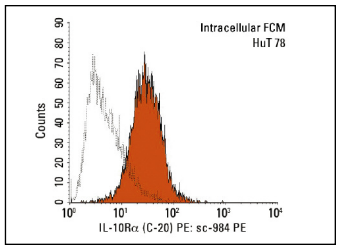
STORAGE

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

DATA



IL-10Rα (C-20): sc-984. Western blot analysis of IL-10Rα expression in non-transfected: sc-117752 (**A**) and human IL-10Rα transfected: sc-176031 (**B**) 293T whole cell lysates.



IL-10Rα (C-20) PE: sc-984 PE. Intracellular FCM analysis of fixed and permeabilized Hut78 cells. Black line histogram represents the isotype control, normal rabbit IgG: sc-3871.

SELECT PRODUCT CITATIONS

1. Zhou, J.H., et al. 2001. IL-10 inhibits apoptosis of promyeloid cells by activating Insulin receptor substrate-2 and phosphatidylinositol 3'-kinase. J. Immunol. 167: 4436-4442.
2. Mentlein, R., et al. 2001. Topology of the signal transduction of the G protein-coupled somatostatin receptor sst2 in human glioma cells. Cell Tissue Res. 303: 27-34.
3. Lajoie, P., et al. 2009. Caveolin-1 regulation of dynamin-dependent, raft-mediated endocytosis of cholera toxin β-subunit occurs independently of caveolae. J. Cell. Mol. Med. 13: 3218-3225.
4. Francipane, M.G., et al. 2009. Suppressor of cytokine signaling 3 sensitizes anaplastic thyroid cancer to standard chemotherapy. Cancer Res. 69: 6141-6148.
5. Mathieu, M., et al. 2009. Cell therapy with autologous bone marrow mononuclear stem cells is associated with superior cardiac recovery compared with use of nonmodified mesenchymal stem cells in a canine model of chronic myocardial infarction. J. Thorac. Cardiovasc. Surg. 138: 646-653.
6. Sung, W.W., et al. 2013. IL-10 promotes tumor aggressiveness via upregulation of CIP2A transcription in lung adenocarcinoma. Clin. Cancer Res. 19: 4092-4103.

RESEARCH USE

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