SANTA CRUZ BIOTECHNOLOGY, INC.

IL-10Rα (M-20): sc-985

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

PRODUCT

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

Blocking peptide available for competition studies, sc-985 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-10Rα (M-20) is recommended for detection of IL-10Rα of mouse, rat and, to a lesser extent, human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Positive Controls: J774.A1 cell lysate: sc-3802.

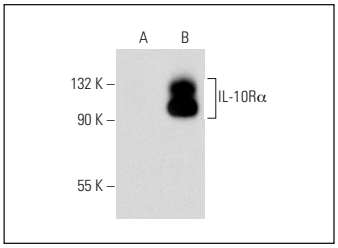
STORAGE

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

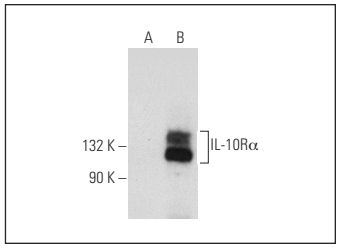
RESEARCH USE

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

DATA



IL-10Rα (M-20): sc-985. Western blot analysis of IL-10Rα expression in non-transfected: sc-110760 (**A**) and human IL-10Rα transfected: sc-114689 (**B**) 293 whole cell lysates.



IL-10Rα (M-20): sc-985. 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.

SELECT PRODUCT CITATIONS

1. Molina-Holgado, E., et al. 2001. LPS/IFN-γ cytotoxicity in oligodendroglial cells: role of nitric oxide and protection by the anti-inflammatory cytokine IL-10. Eur. J. Neurosci. 13: 493-502.
2. Boyd, Z.S., et al. 2003. Interleukin-10 receptor signaling through Stat3 regulates the apoptosis of retinal ganglion cells in response to stress. Invest. Ophthalmol. Vis. Sci. 44: 5206-5211.
3. Hocke, A.C., et al. 2006. Regulation of interleukin IL-4, IL-13, IL-10, and their downstream components in lipopolysaccharide-exposed rat lungs. Comparison of the constitutive expression between rats and humans. Cytokine 33: 199-211.
4. Strle, K., et al. 2007. Novel activity of an anti-inflammatory cytokine: IL-10 prevents TNFα-induced resistance to IGF-I in myoblasts. J. Neuroimmunol. 188: 48-55.

PROTOCOLS

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