

IL-12R β 1 (C-20): sc-658

BACKGROUND

IL-12, a heterodimeric cytokine composed of two disulfide-bonded glycoprotein subunits, p35 and p40, has pleiotropic activities including stimulation of the proliferation of activated T and NK cells, induction of IFN- γ production by PBMCs, enhancement of the lytic activity of NK/LAK cells and promotion of T-helper Th 1 cell responses. The T cell response to IL-12 is mediated through two receptor proteins, designated IL-12R β -1 and IL-12R β -2. The genes encoding human IL-12R β -1 and IL-12R β -2 map to chromosomes 19p13.11 and 1p31.3-p31.2, respectively. Increased IL-12R β -2 expression is crucial in regulating Th1 differentiation, whereas IL-12R β -1 expression is less restricted. Inhibition of IL-12 activity may provide treatment for diseases associated with pathologic Th1 responses, such as multiple sclerosis or Crohn's disease, while administration of recombinant IL-12 may aid in the treatment for allergic disorders and asthma.

CHROMOSOMAL LOCATION

Genetic locus: IL12RB1 (human) mapping to 19p13.11; IL12rb1 (mouse) mapping to 8 B3.3.

SOURCE

IL-12R β 1 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-12R β 1 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.

Blocking peptide available for competition studies, sc-658 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-12R β 1 (C-20) is recommended for detection of IL-12R β 1 of mouse, rat and 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-12R β 1 siRNA (h): sc-35649, IL-12R β 1 siRNA (m): sc-35650, IL-12R β 1 shRNA Plasmid (h): sc-35649-SH, IL-12R β 1 shRNA Plasmid (m): sc-35650-SH, IL-12R β 1 shRNA (h) Lentiviral Particles: sc-35649-V and IL-12R β 1 shRNA (m) Lentiviral Particles: sc-35650-V.

Molecular Weight of IL-12R β 1: 100 kDa.

Positive Controls: IL-12R β 1 (h): 293T Lysate: sc-114305, CCRF-HSB-2 cell lysate: sc-2265 or CCRF-CEM cell lysate: sc-2225.

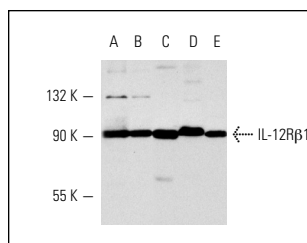
STORAGE

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

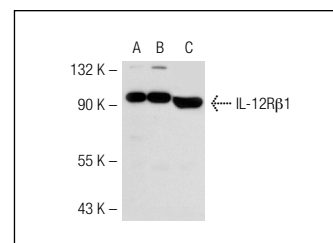
RESEARCH USE

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

DATA



IL-12R β 1 (C-20): sc-658. Western blot analysis of IL-12 receptor β 1 expression in CCRF-HSB-2 (A), CCRF-CEM (B), BYDP (C), WEHI-231 (D) and WEHI-3 (E) whole cell lysates.



IL-12R β 1 (C-20): sc-658. Western blot analysis of IL-12R β 1 expression in non-transfected 293T: sc-117752 (A), human IL-12R β 1 transfected 293T: sc-114305 (B) and BYDP (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Grohmann, U., et al. 2001. Positive regulatory role of IL-12 in macrophages and modulation by IFN- γ . J. Immunol. 167: 221-227.
- Elloso, M.M. and Scott, P. 2001. Differential requirement of CD28 for IL-12 receptor expression and function in CD4⁺ and CD8⁺ T cells. Eur. J. Immunol. 31: 384-395.
- Yu, W.M., et al. 2005. Abnormal Th1 cell differentiation and IFN- γ production in T lymphocytes from motheaten viable mice mutant for Src homology 2 domain-containing protein tyrosine phosphatase-1. J. Immunol. 174: 1013-1019.
- Gribaldo, L., et al. 2005. Interleukin 12 mediated prevention of tumorigenicity in murine cell lines derived from CD40L transgenic mice. Exp. Mol. Pathol. 79: 236-243.
- Canda-Sánchez, A., et al. 2009. Differential distribution of both IL-12R β chains in the plasma membrane of human T cells. J. Membr. Biol. 227: 1-12.

PROTOCOLS

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