

IL-10 (3C12C12): sc-32815

BACKGROUND

Interleukin-10, or IL-10, is a 178 amino acid protein that is primarily secreted by TH2 clones. IL-10 has dual functions, the first of which is the suppression of cytokine production by TH1 clones responding to antigen presented by monocyte and macrophage antigen presenting cells (APCs). The second function consists of the inhibition of response of cytokine targeted cells, possibly by the downregulation of CD25 (the interleukin-2 receptor) on macrophages and B lymphocytes. Human and murine IL-10 exhibit 81% sequence identity at the amino acid level, and share 73% identity at the cDNA level. Both human and murine IL-10 are acid-labile and exist as non-covalently-linked homodimers in solution. IL-10 exerts its biological activity through the IL-10 receptor (IL-10R); a glycoprotein whose expression can be induced in cultured macrophages and fibroblasts by lipopolysaccharide (LPS) stimulation. IL-10 expression has been shown to be elevated in HIV-1 infected individuals and has been implicated in the progression of the disease.

CHROMOSOMAL LOCATION

Genetic locus: IL10 (human) mapping to 1q32.1; IL10 (mouse) mapping to 1 E4.

SOURCE

IL-10 (3C12C12) is a mouse monoclonal antibody raised against recombinant human IL-10.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-10 (3C12C12) is available conjugated to agarose (sc-32815 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32815 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32815 PE), fluorescein (sc-32815 FITC), Alexa Fluor[®] 488 (sc-32815 AF488), Alexa Fluor[®] 546 (sc-32815 AF546), Alexa Fluor[®] 594 (sc-32815 AF594) or Alexa Fluor[®] 647 (sc-32815 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-32815 AF680) or Alexa Fluor[®] 790 (sc-32815 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IL-10 (3C12C12) is recommended for detection of IL-10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for IL-10 siRNA (h): sc-39634, IL-10 siRNA (m): sc-39635, IL-10 shRNA Plasmid (h): sc-39634-SH, IL-10 shRNA Plasmid (m): sc-39635-SH, IL-10 shRNA (h) Lentiviral Particles: sc-39634-V and IL-10 shRNA (m) Lentiviral Particles: sc-39635-V.

Molecular Weight of IL-10 monomer: 20 kDa.

Molecular Weight of IL-10 dimer: 37 kDa.

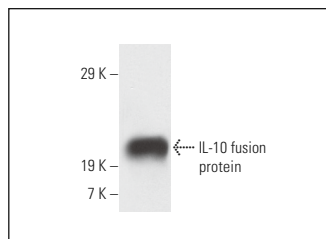
STORAGE

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-10 (3C12C12): sc-32815. Western blot analysis of human recombinant IL-10.

SELECT PRODUCT CITATIONS

- Li, H., et al. 2015. Cigarette smoke extract-treated mast cells promote alveolar macrophage infiltration and polarization in experimental chronic obstructive pulmonary disease. *Inhal. Toxicol.* 27: 822-831.
- Liu, T., et al. 2017. Kinin B1 receptor as a novel, prognostic progression biomarker for carotid atherosclerotic plaques. *Mol. Med. Rep.* 16: 8930-8936.
- Yang, L., et al. 2018. Differential expression of interferon-γ, IL-4 and IL-10 in peripheral blood mononuclear cells during early pregnancy of the bovine. *Reprod. Biol.* 18: 312-315.
- Arabaci Tamer, S., et al. 2018. Nesfatin-1 ameliorates testicular injury and supports gonadal function in rats induced with testis torsion. *Peptides* 107: 1-9.
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- Guleria, C., et al. 2019. Human papillomavirus 16 infection alters the Toll-like receptors and downstream signaling cascade: a plausible early event in cervical squamous cell carcinoma development. *Gynecol. Oncol.* 155: 151-160.
- Zhang, L., et al. 2019. Modulation of helper T cytokines in thymus during early pregnancy in ewes. *Animals* 9: 245.
- Yang, H., et al. 2019. Probiotics ingestion prevents HDAC11-induced DEC205⁺ dendritic cell dysfunction in night shift nurses. *Sci. Rep.* 9: 18002.
- Steen-Louws, C., et al. 2019. Sialic acid-engineered IL4-10 fusion protein is bioactive and rapidly cleared from the circulation. *Pharm. Res.* 37: 17.
- Bu, T., et al. 2021. Exosome-mediated delivery of inflammation-responsive IL-10 mRNA for controlled atherosclerosis treatment. *Theranostics* 11: 9988-10000.

PROTOCOLS

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

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