

IL-10 (A-2): sc-365858

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 IL-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 (mouse) mapping to 1 E4.

SOURCE

IL-10 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 133-165 near the C-terminus of IL-10 of mouse origin.

PRODUCT

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

IL-10 (A-2) is available conjugated to agarose (sc-365858 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365858 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365858 PE), fluorescein (sc-365858 FITC), Alexa Fluor® 488 (sc-365858 AF488), Alexa Fluor® 546 (sc-365858 AF546), Alexa Fluor® 594 (sc-365858 AF594) or Alexa Fluor® 647 (sc-365858 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365858 AF680) or Alexa Fluor® 790 (sc-365858 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365858 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IL-10 (A-2) is recommended for detection of IL-10 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-10 siRNA (m): sc-39635, IL-10 shRNA Plasmid (m): sc-39635-SH and IL-10 shRNA (m) Lentiviral Particles: sc-39635-V.

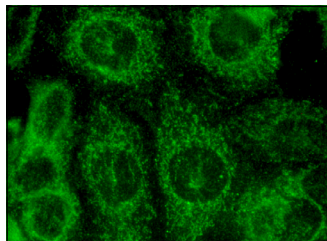
Molecular Weight of IL-10 monomer: 20 kDa.

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.

DATA



IL-10 (A-2): sc-365858. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. He, D., et al. 2015. Enhanced M1/M2 Macrophage ratio promotes orthodontic root resorption. *J. Dent. Res.* 94: 129-139.
2. Wan, X., et al. 2016. SIRT1-PGC1 α -NF κ B pathway of oxidative and inflammatory stress during *Trypanosoma cruzi* infection: benefits of SIRT1-targeted therapy in improving heart function in chagas disease. *PLoS Pathog.* 12: e1005954.
3. Aroor, A.R., et al. 2017. Dipeptidyl peptidase-4 (DPP-4) inhibition with linagliptin reduces western diet-induced myocardial TRAF3IP2 expression, inflammation and fibrosis in female mice. *Cardiovasc. Diabetol.* 16: 61.
4. Moroncini, G., et al. 2018. Mesenchymal stromal cells from human umbilical cord prevent the development of lung fibrosis in immunocompetent mice. *PLoS ONE* 13: e0196048.
5. Das, S., et al. 2019. BTK signaling drives CD1d^{hi}CD5⁺ regulatory B-cell differentiation to promote pancreatic carcinogenesis. *Oncogene* 38: 3316-3324.
6. Chen, C., et al. 2020. CKLF1/CCR5 axis is involved in neutrophils migration of rats with transient cerebral ischemia. *Int. Immunopharmacol.* 85: 106577.
7. Cui, S., et al. 2020. CD1d1 intrinsic signaling in macrophages controls NLRP3 inflammasome expression during inflammation. *Sci. Adv.* 6: eaaz7290.
8. Daniel, S., et al. 2021. Exposure to diesel exhaust particles results in altered lung microbial profiles, associated with increased reactive oxygen species/reactive nitrogen species and inflammation, in C57Bl/6 wildtype mice on a high-fat diet. *Part Fibre Toxicol.* 18: 3.
9. Yang, P.K., et al. 2021. Obesity alters ovarian folliculogenesis through disrupted angiogenesis from increased IL-10 production. *Mol. Metab.* 49: 101189.

RESEARCH USE

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

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