IL-10 (M-18): sc-1783



The Power to Overtio

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-liable 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: II10 (mouse) mapping to 1 E4.

SOURCE

IL-10 (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IL-10 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1783 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-10 (M-18) is recommended for detection of IL-10 of mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (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.

RESEARCH USE

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

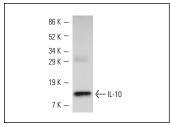
PROTOCOLS

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

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 (M-18): sc-1783. Western blot analysis of mouse recombinant IL-10.

IL-10 (M-18): sc-1783. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and extracellular staining of cells in germinal centers and cells in non-germinal centers.

SELECT PRODUCT CITATIONS

- Marrogi, A.J., et al. 1997. Study of tumor infiltrating lymphocytes and transforming growth factor-β as prognastic factors in breast carcinoma. Int. J. Cancer 74: 492-501.
- Milanski, M., et al. 2009. Saturated fatty acids produce an inflammatory response predominantly through the activation of TLR4 signaling in hypothalamus: implications for the pathogenesis of obesity. J. Neurosci. 29: 359-370.
- 3. Hoffman-Goetz, L., et al. 2009. Voluntary exercise training in mice increases the expression of antioxidant enzymes and decreases the expression of TNF- α in intestinal lymphocytes. Brain Behav. Immun. 23: 498-506.
- 4. Leal, R.F., et al. 2010. Activation of signal transducer and activator of transcription-1 (STAT-1) and differential expression of interferon-γ and anti-inflammatory proteins in pelvic ileal pouches for ulcerative colitis and familial adenomatous polyposis. Clin. Exp. Immunol. 160: 380-385.
- 5. Morari, J., et al. 2010. The role of proliferator-activated receptor γ coactivator-1 α in the fatty-acid-dependent transcriptional control of interleukin-10 in hepatic cells of rodents. Metab. Clin. Exp. 59: 215-223.
- 6. Vieira, R.P., et al. 2011. Airway epithelium mediates the anti-inflammatory effects of exercise on asthma. Respir. Physiol. Neurobiol. 175: 383-389.
- Hizume, D.C., et al. 2012. Cigarette smoke dissociates inflammation and lung remodeling in OVA-sensitized and challenged mice. Respir. Physiol. Neurobiol. 181: 167-176.
- 8. Toledo, A.C., et al. 2012. Aerobic exercise attenuates pulmonary injury induced by exposure to cigarette smoke. Eur. Respir. J. 39: 254-264.
- 9. Cintra, D.E., et al. 2012. Unsaturated fatty acids revert diet-induced hypothalamic inflammation in obesity. PLoS ONE 7: e30571.
- 10.Gu, H., et al. 2013. Necro-inflammatory response of pancreatic acinar cells in the pathogenesis of acute alcoholic pancreatitis. Cell Death Dis. 4: e816.