

IL-13 (A-9): sc-393365

BACKGROUND

Interleukin-13, or IL-13, is a pleiotropic cytokine that exhibits 30% sequence identity with IL-4 and shares many of the same biological activities. Like IL-4, IL-13 affects monocytes, macrophages and B cells by upregulating the expression of CD23 and MHC proteins, and downregulating the expression of CD14. Both IL-4 and IL-13 are secreted by activated T lymphocytes and are powerful regulators of inflammation. Both inhibit the secretion of proinflammatory cytokines and chemokines from activated monocytes and stimulate the expression of IgE on activated B cells. IL-13 contains five cysteine residues and multiple N-linked glycosylation sites and has been reported to inhibit the production of IL-2 in natural killer cells. IL-13 cDNA encodes a 131 amino acid precursor with a 20 amino acid signal peptide which is cleaved to generate a mature protein.

CHROMOSOMAL LOCATION

Genetic locus: Il13 (mouse) mapping to 11 B1.3.

SOURCE

IL-13 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 87-112 at the C-terminus of IL-13 of mouse origin.

RODUCT

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-13 (A-9) is available conjugated to agarose (sc-393365 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393365 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393365 PE), fluorescein (sc-393365 FITC), Alexa Fluor® 488 (sc-393365 AF488), Alexa Fluor® 546 (sc-393365 AF546), Alexa Fluor® 594 (sc-393365 AF594) or Alexa Fluor® 647 (sc-393365 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393365 AF680) or Alexa Fluor® 790 (sc-393365 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393365 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IL-13 (A-9) is recommended for detection of IL-13 of mouse 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-13 siRNA (m): sc-39643, IL-13 shRNA Plasmid (m): sc-39643-SH and IL-13 shRNA (m) Lentiviral Particles: sc-39643-V.

Molecular Weight of IL-13: 13 kDa.

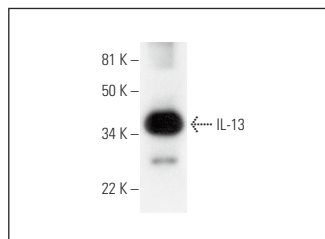
RESEARCH USE

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

STORAGE

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

DATA



IL-13 (A-9): sc-393365. Western blot analysis of mouse recombinant IL-13.

SELECT PRODUCT CITATIONS

1. Wu, M., et al. 2016. Glutamine promotes intestinal SIgA secretion through intestinal microbiota and IL-13. *Mol. Nutr. Food Res.* 60: 1637-1648.
2. Meng, Y., et al. 2019. Paeonol inhibits the development of 1-chloro-2,4-dinitrobenzene-induced atopic dermatitis via mast and T cells in BALB/c mice. *Mol. Med. Rep.* 19: 3217-3229.
3. Gao, C., et al. 2020. Autophagy activation represses pyroptosis through the IL-13 and JAK1/Stat1 pathways in a mouse model of moderate traumatic brain injury. *ACS Chem. Neurosci.* 11: 4231-4239.
4. Park, Y., et al. 2021. Effects of hypothermia on inflammatory cytokine expression in rat liver following asphyxial cardiac arrest. *Exp. Ther. Med.* 21: 626.
5. Lee, T.K., et al. 2021. Therapeutic effects of risperidone against spinal cord injury in a rat model of asphyxial cardiac arrest: a focus on body temperature, paraplegia, motor neuron damage, and neuroinflammation. *Vet. Sci.* 8: 230.
6. Her, Y., et al. 2022. *Pinus thunbergii* bark extract rich in flavonoids promotes hair growth in dorsal skin by regulating inflammatory cytokines and increasing growth factors in mice. *Mol. Med. Rep.* 25: 100.
7. Gao, Y., et al. 2023. Melatonin ameliorates neurological deficits through MT2/IL-33/ferritin H signaling-mediated inhibition of neuroinflammation and ferroptosis after traumatic brain injury. *Free Radic. Biol. Med.* 199: 97-112.
8. Silva, L.L.S.D., et al. 2023. Effects of a peptide derived from the primary sequence of a kallikrein inhibitor isolated from *Bauhinia bauhinoides* (pep-BbKI) in an asthma-COPD overlap (ACO) model. *Int. J. Mol. Sci.* 24: 11261.

PROTOCOLS

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

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