SANTA CRUZ BIOTECHNOLOGY, INC.

IL-34 (1D12E8): sc-517217

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The interleukins (ILs) are a broad family of well characterized cytokines, primarily of hematopoietic cell origin. They are secreted by immune cells (mainly macrophages, B-cells or T-cells) that regulate a wide range of immune system functions. The specific functions of different interleukins vary from the regulation of inflammatory and immune responses to the regulation of other interleukins. IL-34 (interleukin-34) is a 235 amino acid secreted mouse protein that belongs to the interleukin family of cytokines. Existing as a homodimer, IL-34 functions to promote the viability and differentiation of macrophages and monocytes and may also act as a ligand for c-Fms/CSF-1R, a colony-stimulating factor. Multiple alternatively spliced isoforms of IL-34 exist, all of which are encoded by a gene that maps to mouse chromosome 8 E1.

REFERENCES

1. Smith, K.A., et al. 1980. The functional relationship of the interleukins. J. Exp. Med. 151: 1551-1556.
2. Cockayne, D.A., et al. 1991. Antisense RNA inhibition of hematopoietic growth factor production. Growth Factors 5: 171-181.
3. Sander, B., et al. 1993. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. J. Immunol. Methods 166: 201-214.
4. Moldenhauer, A., et al. 2008. Hematopoietic progenitor cells and interleukin-stimulated endothelium: expansion and differentiation of myeloid precursors. BMC Immunol. 9: 56.
5. Lin, H., et al. 2008. Discovery of a cytokine and its receptor by functional screening of the extracellular proteome. Science 320: 807-811.
6. Liptrott, N.J., et al. 2009. The impact of cytokines on the expression of drug transporters, cytochrome P450 enzymes and chemokine receptors in human PBMC. Br. J. Pharmacol. 156: 497-508.
7. Cheng, M., et al. 2009. Distinct and overlapping patterns of cytokine regulation of thymic and bone marrow-derived NK cell development. J. Immunol. 182: 1460-1468.

CHROMOSOMAL LOCATION

Genetic locus: IL34 (human) mapping to 16q22.1.

SOURCE

IL-34 (1D12E8) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 21-242 of IL-34 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

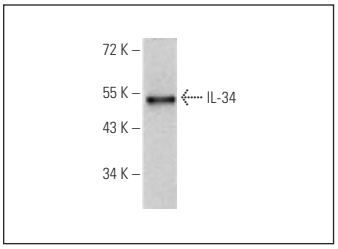
IL-34 (1D12E8) is recommended for detection of IL-34 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-34 siRNA (h): sc-92990, IL-34 shRNA Plasmid (h): sc-92990-SH and IL-34 shRNA (h) Lentiviral Particles: sc-92990-V.

Molecular Weight of IL-34: 27 kDa.

Positive Controls: human IL-34-hIgGFc transfected HEK293 whole cell lysate.

DATA



IL-34 (1D12E8): sc-517217. Western blot analysis of IL-34 expression in human IL-34-hIgGFc transfected HEK293 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Guo, R., et al. 2019. Circular RNA ANKRD36 attends to lipopolysaccharide-aroused MRC-5 cell injury via regulating microRNA-31-3p. Biofactors. E-published.

RESEARCH USE

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

PROTOCOLS

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