

IL-34 (C-19): sc-243072

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.

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.

CHROMOSOMAL LOCATION

Genetic locus: IL34 (human) mapping to 16q22.1; Il34 (mouse) mapping to 8 E1.

SOURCE

IL-34 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-34 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-243072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

IL-34 (C-19) is recommended for detection of IL-34 of mouse and 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 siRNA (m): sc-146220, IL-34 shRNA Plasmid (h): sc-92990-SH, IL-34 shRNA Plasmid (m): sc-146220-SH, IL-34 shRNA (h) Lentiviral Particles: sc-92990-V and IL-34 shRNA (m) Lentiviral Particles: sc-146220-V.

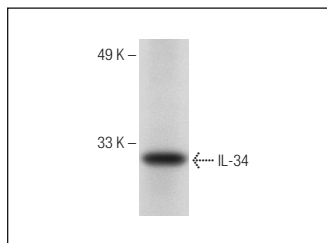
Molecular Weight of IL-34: 27 kDa.

Positive Controls: mouse spleen extract: sc-2391.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IL-34 (C-19): sc-243072. Western blot analysis of IL-34 expression in mouse spleen tissue extract.

SELECT PRODUCT CITATIONS

1. Gómez-Nicola, D., et al. 2013. Regulation of microglial proliferation during chronic neurodegeneration. *J. Neurosci.* 33: 2481-2493.
2. Baek, J.H., et al. 2015. IL-34 mediates acute kidney injury and worsens subsequent chronic kidney disease. *J. Clin. Invest.* 125: 3198-3214.

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Try **IL-34 (1D12E8): sc-517217**, our highly recommended monoclonal alternative to IL-34 (C-19).