

IL-16 (C-20): sc-1941

BACKGROUND

Cytokines are small, soluble proteins with pleiotropic effects on a variety of cell types. Cytokines have a regulatory function over the immune system and mediate aspects of inflammatory response. They exert their biological effects through the binding of membrane-bound receptors which, in turn, initiate signal transduction cascades that elicit physiological changes in their target cells. Interleukin-16, or IL-16, is a cytokine that has chemoattractant activity on CD4⁺ T lymphocytes. It has long been known that eosinophils and CD4⁺ T lymphocytes are recruited to sites of allergic inflammation, but the molecular mechanism was poorly understood. IL-16, also referred to as lymphocyte chemoattractant factor, is secreted by activated eosinophils as part of the allergic response along with RANTES, an additional cytokine. Once bound to its cognate receptor, CD4, IL-16 initiates a signal cascade that results in the activation of the PKC family.

REFERENCES

1. Arend, W.P., et al. 1994. Binding of IL-1 α , IL-1 β , and IL-1 receptor antagonist by soluble IL-1 receptors and levels of soluble IL-1 receptors in synovial fluids. *J. Immunol.* 153: 4766-4774.
2. Okamura, H., et al. 1995. Cloning of a new cytokine that induces IFN- γ production by T cells. *Nature* 378: 88-91.
3. Cohen, M.C., et al. 1996. Cytokine function: a study in biologic diversity. *Amer. J. Clin. Pathol.* 105: 589-598.
4. Ihle, J.N. 1996. Janus kinases in cytokine signalling. *Phil. Trans. Royal Soc. London* 351: 159-166.
5. Laberge, S., et al. 1996. Secretion of IL-16 (lymphocyte chemoattractant factor) from serotonin-stimulated CD8⁺ T cells *in vitro*. *J. Immunol.* 156: 310-315.

CHROMOSOMAL LOCATION

Genetic locus: IL16 (human) mapping to 15q25.1.

SOURCE

IL-16 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-16 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1941 P, (100 μ g 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-16 (C-20) is recommended for detection of IL-16 of human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IL-16 (C-20) is also recommended for detection of IL-16 in additional species, including equine and porcine.

Suitable for use as control antibody for IL-16 siRNA (h): sc-39647, IL-16 shRNA Plasmid (h): sc-39647-SH and IL-16 shRNA (h) Lentiviral Particles: sc-39647-V.

Molecular Weight of mature IL-16: 20 kDa.

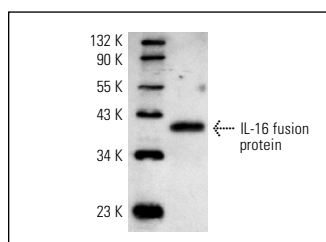
Molecular Weight of IL-16 precursor: 40-75 kDa.

Positive Controls: Human PBL whole cell lysate.

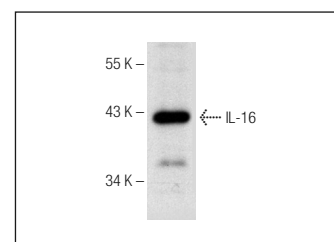
RECOMMENDED SECONDARY REAGENTS

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).

DATA



IL-16 (C-20): sc-1941. Western blot analysis of human recombinant IL-16 fusion protein.



IL-16 (C-20): sc-1941. Western blot analysis of IL-16 expression in human PBL whole cell lysate.

SELECT PRODUCT CITATIONS

1. Gu, Y., et al. 2008. Elevated maternal IL-16 levels, enhanced IL-16 expressions in endothelium and leukocytes, and increased IL-16 production by placental trophoblasts in women with preeclampsia. *J. Immunol.* 181: 4418-4422.


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Try **IL-16 (A-1): sc-374606** or **IL-16 (B-2): sc-374604**, our highly recommended monoclonal alternatives to IL-16 (C-20).