SANTA CRUZ BIOTECHNOLOGY, INC.

IL-29 (C-19): sc-67642



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-29, also known as interferon- $\lambda 1$ (IFN- $\lambda 1$) is a class II cytokine that stimulates its response through a heterodimeric receptor composed of IL-10R β and IL-28RA. It is induced by viral infection and exhibits antiviral and antiproliferative activity. In addition, IL-29 may play a role in immunoregulation. It stimulates an identical response as IFN- α but utilizes a different receptor. In addition, IL-29 may be a useful therapeutic agent against chronic viral hepatitis.

REFERENCES

- 1. Sheppard, P., et al. 2003. IL-28, IL-29 and their class II cytokine receptor IL-28R. Nat. Immunol. 4: 63-68.
- Pestka, S., et al. 2004. Interferons, interferon-like cytokines, and their receptors. Immunol. Rev. 202: 8-32.
- Brand, S., et al. 2005. IL-28A and IL-29 mediate antiproliferative and antiviral signals in intestinal epithelial cells and murine CMV infection increases colonic IL-28A expression. Am. J. Physiol. Gastrointest. Liver Physiol. 289: G960-G968.
- 4. Siren, J., et al. 2005. IFN- α regulates TLR-dependent gene expression of IFN- α , IFN- β , IL-28, and IL-29. J. Immunol. 174: 1932-1937.
- Doyle, S.E., et al. 2006. Interleukin-29 uses a type 1 interferon-like program to promote antiviral responses in human hepatocytes. Hepatology 44: 896-906.
- Li, M., et al. 2006. Purification and characterization of recombinant human interleukin-29 expressed in *Escherichia coli*. J. Biotechnol. 122: 334-340.

CHROMOSOMAL LOCATION

Genetic locus: IFNL1 (human) mapping to 19q13.2.

SOURCE

IL-29 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-29 of human 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-67642 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

IL-29 (C-19) is recommended for detection of IL-29 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IL-29 (C-19) is also recommended for detection of IL-29 in additional species, including canine.

Suitable for use as control antibody for IL-29 siRNA (h): sc-62499, IL-29 shRNA Plasmid (h): sc-62499-SH and IL-29 shRNA (h) Lentiviral Particles: sc-62499-V.

Molecular Weight of IL-29: 22 kDa.

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) Immunofluo-rescence: 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



IL-29 (C-19): sc-67642. Immunoperoxidase stanning c formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cell and glial cells.

RESEARCH USE

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

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