SANTA CRUZ BIOTECHNOLOGY, INC.

IL-22Rα2 (Q-16): sc-67638

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The Power to Question

BACKGROUND

IL-22Rα2 (interleukin-22 receptor α2 chain), also known as IL-22 binding protein (IL-22BP), cytokine receptor family class II member 10 (CRF2-10) or CRF2-soluble 1 (CRF2-S1), is a soluble, nonsignaling single chain receptor for IL-22. It is highly expressed in intestine and lymph nodes and is also found in spleen, kidney and liver. IL-22Rα2 has a cytokine-binding domain that contains two FnIII domains. Its affinity for IL-22 is 4- to 10-fold higher than that of the membrane-bound IL-22 receptor, however it has a dissociation rate up to 20 times lower. By binding to IL-22, IL-22Rα2 prevents the binding to the IL-22 membrane-bound receptor and therefore inhibits IL-22 signaling. This suggests that IL-22Rα2 may be important in regulating inflammatory responses. In addition, IL-22Rα2 can be induced by lipopolysaccharides (LPSs).

REFERENCES

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2. Dumoutier, L., et al. 2001. Cloning and characterization of IL-22 binding protein, a natural antagonist of IL-10-related T cell-derived inducible factor/IL-22. J. Immunol. 166: 7090-7095.

3. Kotenko, S.V., et al. 2001. Identification, cloning, and characterization of a novel soluble receptor that binds IL-22 and neutralizes its activity. J. Immunol. 166: 7096-7103.

4. Wei, C.C., et al. 2003. Cloning and characterization of mouse IL-22 binding protein. Genes Immun. 4: 204-211.

5. Weiss, B., et al. 2004. Cloning of murine IL-22 receptor α2 and comparison with its human counterpart. Genes Immun. 5: 330-336.

6. Wolk, K., et al. 2005. Is there an interaction between interleukin-10 and interleukin-22? Genes Immun. 6: 8-18.

7. Otkjaer, K., et al. 2005. The dynamics of gene expression of interleukin-19 and interleukin-20 and their receptors in psoriasis. Br. J. Dermatol. 153: 911-918.

8. Wolk, K., et al. 2007. IL-22 induces lipopolysaccharide-binding protein in hepatocytes: a potential systemic role of IL-22 in Crohn's disease. J. Immunol. 178: 5973-5981.

9. Weber, G.F., et al. 2007. Inhibition of interleukin-22 attenuates bacterial load and organ failure during acute polymicrobial sepsis. Infect. Immun. 75: 1690-1697.

CHROMOSOMAL LOCATION

Genetic locus: Il22ra2 (mouse) mapping to 10 A3.

SOURCE

IL-22Rα2 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IL-22Rα2 of mouse origin.

STORAGE

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

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-67638 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-22Rα2 (Q-16) is recommended for detection of IL-22Rα2 precursor of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-22Rα2 siRNA (m): sc-62496.

Molecular Weight of IL-22Rα2: 27 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) 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.

RESEARCH USE

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

PROTOCOLS

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