

IL-22 (E-17): sc-14436

BACKGROUND

IL-10-related T cell-derived inducible factor (IL-22, also known as IL-TIF) is a cytokine that was originally identified in the mouse as an IL-9 inducible gene in T cells and mast cells and shows 22% amino acid identity with IL-10. Additionally, IL-22 is induced by IL-9 in thymic lymphomas and by lectins in freshly isolated splenocytes. IL-22 is found in both the thymus and brain, which suggests that the role of this factor is not restricted to the immune system. IL-22 is a ligand for CRF2-4, a member of the class II cytokine receptor family. In contrast to IL-10, IL-22 does not inhibit the production of proinflammatory cytokines by monocytes in response to lipopolysaccharide nor does it impact IL-10 function on monocytes, but it has modest inhibitory effects on IL-4 production from Th2 T cells.

REFERENCES

- Dumoutier, L., et al. J.C. 2000. IL-TIF/IL-22: genomic organization and mapping of the human and mouse genes. *Genes Immunol.* 1: 488-494.
- Xie, M.H., et al. 2000. Interleukin (IL)-22, a novel human cytokine that signals through the interferon receptor-related proteins CRF2-4 and IL-22R. *J. Biol. Chem.* 275: 31335-31339.
- Dumoutier, L., et al. 2000. Human interleukin-10-related T cell-derived inducible factor: molecular cloning and functional characterization as an hepatocyte-stimulating factor. *Proc. Natl. Acad. Sci. USA* 97: 10144-10149.
- Dumoutier, L., et al. 2000. Cloning and characterization of IL-10-related T cell-derived inducible factor (IL-TIF), a novel cytokine structurally related to IL-10 and inducible by IL-9. *J. Immunol.* 164: 1814-1819.
- Kotenko, S.V., et al. 2000. Identification of the functional IL-TIF (IL-22) receptor complex: the IL-10R2 chain (IL-10R β) is a shared component of both IL-10 and IL-TIF (IL-22) receptor complexes. *J. Biol. Chem.* 276: 2725-2732.

CHROMOSOMAL LOCATION

Genetic locus: IL22 (human) mapping to 12q15; IL22 (mouse) mapping to 10 D2.

SOURCE

IL-22 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IL-22 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-14436 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-22 (E-17) is recommended for detection of IL-22 of mouse, rat and 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)], 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).

IL-22 (E-17) is also recommended for detection of IL-22 in additional species, including equine, canine, bovine and porcine.

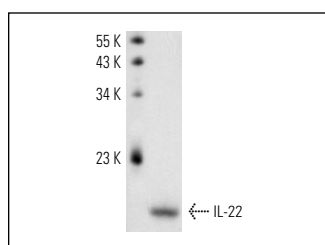
Suitable for use as control antibody for IL-22 siRNA (h): sc-39664, IL-22 siRNA (m): sc-39665, IL-22 shRNA Plasmid (h): sc-39664-SH, IL-22 shRNA Plasmid (m): sc-39665-SH, IL-22 shRNA (h) Lentiviral Particles: sc-39664-V and IL-22 shRNA (m) Lentiviral Particles: sc-39665-V.

Molecular Weight of IL-22: 18 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) 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-22 (E-17): sc-14436. Western blot analysis of human recombinant IL-22.

SELECT PRODUCT CITATIONS

- Whittington, H.A., et al. 2004. Interleukin-22: a potential immunomodulatory molecule in the lung. *Am. J. Respir. Cell Mol. Biol.* 31: 220-226.
- Gaudenzio, N., et al. 2013. Human mast cells drive memory CD4⁺ T cells toward an inflammatory IL-22⁺ phenotype. *J. Allergy Clin. Immunol.* 131: 1400-1407.

PROTOCOLS

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