

IL-33 (H-226): sc-98659

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-33 (interleukin 33), also known as DVS27, IL1F11, C9orf26 or NF-HEV, is a 270 amino acid secreted protein that belongs to the IL family. Expressed in tonsils and lymph nodes, IL-33 functions as a cytokine that is stimulated via interaction with ST2, an association that recruits a variety of proteins, including MyD88, IRAK-1 and TRAF6, and can also induce T helper-associated cytokine activity. IL-33 plays a role in the survival and adhesion of mast cells and may be involved in the control of endothelial cell activation.

REFERENCES

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2. Hayakawa, H., et al. 2007. Soluble ST2 blocks interleukin-33 signaling in allergic airway inflammation. *J. Biol. Chem.* 282: 26369-26380.
3. Sanada, S., et al. 2007. IL-33 and ST2 comprise a critical biomechanically induced and cardioprotective signaling system. *J. Clin. Invest.* 117: 1538-1549.
4. Allakhverdi, Z., et al. 2007. Cutting edge: The ST2 ligand IL-33 potently activates and drives maturation of human mast cells. *J. Immunol.* 179: 2051-2054.
5. Iikura, M., et al. 2007. IL-33 can promote survival, adhesion and cytokine production in human mast cells. *Lab. Invest.* 87: 971-978.
6. K uchler, A.M., et al. 2008. Nuclear interleukin-33 is generally expressed in resting endothelium but rapidly lost upon angiogenic or proinflammatory activation. *Am. J. Pathol.* 173: 1229-1242.
7. Palmer, G., et al. 2008. The IL-1 receptor accessory protein (AcP) is required for IL-33 signaling and soluble AcP enhances the ability of soluble ST2 to inhibit IL-33. *Cytokine* 42: 358-364.

CHROMOSOMAL LOCATION

Genetic locus: IL33 (human) mapping to 9p24.1.

SOURCE

IL-33 (H-226) is a rabbit polyclonal antibody raised against amino acids 45-270 mapping at the C-terminus of IL-33 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.

RESEARCH USE

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

APPLICATIONS

IL-33 (H-226) is recommended for detection of IL-33 of 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-33 siRNA (h): sc-75333, IL-33 shRNA Plasmid (h): sc-75333-SH and IL-33 shRNA (h) Lentiviral Particles: sc-75333-V.

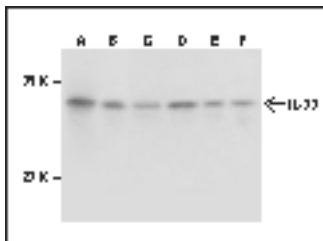
Molecular Weight of IL-33: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 HeLa whole cell lysate: sc-2200 or T84 whole cell lysate: sc-364797.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IL-33 (H-226) sc-98659 Western Blot analysis of IL-33 expression in Jurkat (A), HeLa (B), T84 (C) and 6815 (D) whole cell lysates and HeLa (E) and Jurkat (F) nuclear extracts.

STORAGE

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

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Try **IL-33 (4E9): sc-130625**, our highly recommended monoclonal alternative to IL-33 (H-226).