

IL-1 β (H-153): sc-7884

BACKGROUND

Two forms of interleukin-1, designated IL-1 α and IL-1 β , have been described. Although encoded by distinct genes and exhibiting roughly only 25% sequence identity, IL-1 α and IL-1 β bind to the same receptor and seem to elicit similar biological responses. IL-1 production is generally thought to be associated with inflammation, but it has also been shown to be expressed during kidney development, thymocyte differentiation and cartilage degradation. IL-1 plays a critical role in the regulation of immune response and inflammation, acting as an activator of T and B lymphocytes and natural killer (NK) cells. In T cells, IL-1 stimulates the production of IL-2 and selectively inhibits IL-4 expression. IL-1 induces B cell proliferation and maturation, and immunoglobulin synthesis. NK cells require IL-1 β for production of the anti-pathogen IFN- γ . IL-1 has also been implicated in several pathological conditions including rheumatoid arthritis, inflammatory bowel disease and atherosclerosis.

CHROMOSOMAL LOCATION

Genetic locus: IL1B (human) mapping to 2q13; Il1b (mouse) mapping to 2 F1.

SOURCE

IL-1 β (H-153) is a rabbit polyclonal antibody raised against amino acids 117-269 of IL-1 β 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.

APPLICATIONS

IL-1 β (H-153) is recommended for detection of IL-1 β 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), 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).

Suitable for use as control antibody for IL-1 β siRNA (h): sc-39615, IL-1 β siRNA (m): sc-39616, IL-1 β siRNA (r): sc-45995, IL-1 β shRNA Plasmid (h): sc-39615-SH, IL-1 β shRNA Plasmid (m): sc-39616-SH, IL-1 β shRNA Plasmid (r): sc-45995-SH, IL-1 β shRNA (h) Lentiviral Particles: sc-39615-V, IL-1 β shRNA (m) Lentiviral Particles: sc-39616-V and IL-1 β shRNA (r) Lentiviral Particles: sc-45995-V.

Molecular Weight of IL-1 β precursor: 31 kDa.

Molecular Weight of mature IL-1 β : 17 kDa.

Positive Controls: IL-1 β (h): 293 Lysate: sc-111184, SK-N-SH cell lysate: sc-2410 or BJAB whole cell lysate: sc-2207.

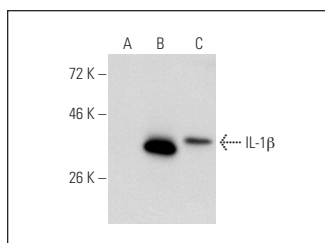
STORAGE

Store at 4 $^{\circ}$ C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

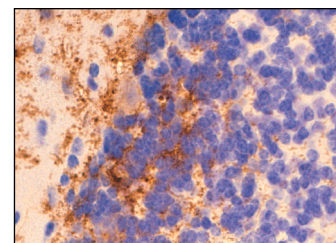
RESEARCH USE

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

DATA



IL-1 β (H-153): sc-7884. Western blot analysis of IL-1 β expression in non-transfected 293: sc-110760 (A), human IL-1 β transfected 293: sc-111184 (B) and BJAB (C) whole cell lysates.



IL-1 β (H-153): sc-7884. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing extracellular localization.

SELECT PRODUCT CITATIONS

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- Gao, J., et al. 2012. Ontogeny of angiotensin type 2 and type 1 receptor expression in mice. *J. Renin Angiotensin Aldosterone Syst.* 13: 341-352.
- Cho, K.A., et al. 2012. IL-17 and IL-22 enhance skin inflammation by stimulating the secretion of IL-1 β by keratinocytes via the ROS-NLRP3-caspase-1 pathway. *Int. Immunol.* 24: 147-158.
- Ahmad, A., et al. 2012. Protective effect of apocynin, a NADPH-oxidase inhibitor, against contrast-induced nephropathy in the diabetic rats: a comparison with n-acetylcysteine. *Eur. J. Pharmacol.* 674: 397-406.
- Galeotti, N. and Ghelardini, C. 2012. Inhibition of the PKC γ - ϵ pathway relieves from meningeal nociception in an animal model: an innovative perspective for migraine therapy? *Neurotherapeutics* 10: 329-339.
- Zaidi, A., et al. 2012. Effects of lipopolysaccharide on the response of C57BL/6J mice to whole thorax irradiation. *Radiother. Oncol.* 105: 341-349.
- Claudino, M., et al. 2012. Spontaneous periodontitis development in diabetic rats involves an unrestricted expression of inflammatory cytokines and tissue destructive factors in the absence of major changes in commensal oral microbiota. *Exp. Diabetes Res.* 2012: 356841.
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Try **IL-1 β (E7-2-hIL): sc-32294** or **IL-1 β (F-5): sc-515598**, our highly recommended monoclonal alternatives to IL-1 β (H-153). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IL-1 β (E7-2-hIL): sc-32294**.