

IL-1 β (117-269): sc-4311 WB

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. Both proteins are synthesized as 31 kDa precursors that are processed to 17 kDa mature polypeptides. 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. A membrane bound form of IL-1 α is reported to be expressed on the surface of macrophages, endothelial cells and dendritic cells and fibroblasts. 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 INF γ . IL-1 has also been implicated in several pathological conditions including rheumatoid arthritis, inflammatory bowel disease and atherosclerosis.

REFERENCES

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SOURCE

IL-1b (117-269) is expressed in *E. coli* as a 44 kDa tagged fusion protein corresponding to amino acids 117-269 of IL-1b of human origin.

PRODUCT

IL-1 β (117-269) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10 μ g in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

IL-1 β (117-269) is suitable as a Western blotting control for sc-1250 and sc-7884.

STORAGE

Store at -20 $^{\circ}$ C; stable for one year from the date of shipment.

RESEARCH USE

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