

IL-1ra (6A8): sc-101616

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. IL-1 receptor antagonist (IL-1ra) is a cytokine that inhibits IL-1 α and IL-1 β binding to interleukin receptors. By neutralizing the activity of IL-1, IL-1ra contributes to the inhibition of the immune and inflammatory responses and has been targeted as a drug for the treatment of severely active rheumatoid arthritis. There are four isoforms of IL-1ra that are produced as a result of alternative splicing events.

REFERENCES

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3. Carter, D.B., et al. 1990. Purification, cloning, expression and biological characterization of an interleukin-1 receptor antagonist protein. Nature 344: 633-638.
4. Sadouk, M.B., et al. 1995. Human synovial fibroblasts coexpress IL-1 receptor type I and type II mRNA. The increased level of the IL-1 receptor in osteoarthritic cells is related to an increased level of the type I receptor. Lab. Invest. 73: 347-355.
5. Lonnemann, G., et al. 1995. Cytokines in human renal interstitial fibrosis. I. Interleukin-1 is a paracrine growth factor for cultured fibrosis-derived kidney fibroblasts. Kidney Int. 47: 837-844.
6. Zuniga-Pflucker, J.C., et al. 1995. Requirement for TNF- α and IL-1 α in fetal thymocyte commitment and differentiation. Science 268: 1906-1909.
7. Sandborg, C.I., et al. 1995. IL-4 expression in human T cells is selectively inhibited by IL-1 α and IL-1 β . J. Immunol. 155: 5206-5212.

CHROMOSOMAL LOCATION

Genetic locus: IL1RN (human) mapping to 2q13.

SOURCE

IL-1ra (6A8) is a mouse monoclonal antibody raised against recombinant IL-1ra of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ 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

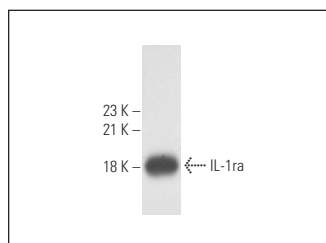
IL-1ra (6A8) is recommended for detection of IL-1ra of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with IL-1 α or IL-1 β .

Suitable for use as control antibody for IL-1ra siRNA (h): sc-39617, IL-1ra shRNA Plasmid (h): sc-39617-SH and IL-1ra shRNA (h) Lentiviral Particles: sc-39617-V.

Molecular Weight of IL-1ra: 17-25 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or THP-1 cell lysate: sc-2238.

DATA



IL-1ra (6A8): sc-101616. Western blot analysis of IL-1ra expression in human PBL whole cell lysate.

STORAGE

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

PROTOCOLS

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