

IL-1ra (C-20): sc-8480

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. 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 receptor antagonist (IL-1ra) is a cytokine that inhibits IL-1 α and IL-1 β binding to interleukin receptors.

REFERENCES

1. Auron, P.E., et al. 1984. Nucleotide sequence of human monocyte interleukin-1 precursor cDNA. Proc. Natl. Acad. Sci. USA 81: 7907-7911.
2. March, C.J., et al. 1985. Cloning, sequence and expression of two distinct human interleukin-1 complementary DNAs. Nature 315: 641-647.

CHROMOSOMAL LOCATION

Genetic locus: IL1RN (human) mapping to 2q14.2; Il1rn (mouse) mapping to 2 A3.

SOURCE

IL-1ra (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-1ra 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-8480 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-1ra (C-20) is recommended for detection of IL-1ra isoforms of human and, to a lesser extent, mouse 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).

Suitable for use as control antibody for IL-1ra siRNA (h): sc-39617, IL-1ra siRNA (m): sc-39618, IL-1ra shRNA Plasmid (h): sc-39617-SH, IL-1ra shRNA Plasmid (m): sc-39618-SH, IL-1ra shRNA (h) Lentiviral Particles: sc-39617-V and IL-1ra shRNA (m) Lentiviral Particles: sc-39618-V.

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

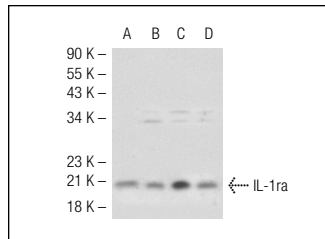
Molecular Weight of glycosylated IL-1ra: 25 kDa.

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

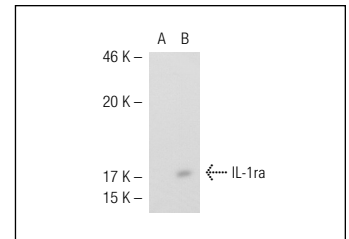
RECOMMENDED SECONDARY REAGENTS

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-1ra (C-20): sc-8480. Western blot analysis of IL-1ra expression in A-431 (A), THP-1 (B), LPS treated THP-1 (C) and human PBL (D) whole cell lysates.



IL-1ra (C-20): sc-8480. Western blot analysis of IL-1ra expression in non-transfected: sc-117752 (A) and mouse IL-1ra transfected: sc-127004 (B) THP-1 whole cell lysates.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **IL-1ra (A-4): sc-374084** or **IL-1ra (A-11): sc-376094**, our highly recommended monoclonal alternatives to IL-1ra (C-20).