

# IL-1RAcP (N-20): sc-47056

## BACKGROUND

Interleukin-1 (IL-1) is a key pro-inflammatory cytokine that has diverse actions in the brain as a regulator of host defense responses and a mediator of inflammation. Two major agonists, IL-1 $\alpha$  and IL-1 $\beta$ , bind to a single known functional type I IL-1 receptor (IL-1RI), which associates with the accessory protein (IL-1RAcP), resulting in signal transduction. IL-1F6, IL-1F8, and IL-1F9 signal through IL-1RAcP to activate NF $\kappa$ B. The membrane bound form of IL-1RAcP (mIL-1RAcP) facilitates signal transduction. Two alternatively spliced isoforms, soluble IL-1RAcP (sIL-1RAcP) and sIL-1RAcP- $\beta$ , which lack transmembrane and intracellular domains can inhibit IL-1 signaling. Although both mIL-1RAcP and sIL-1RAcP mRNAs are widely expressed in human tissue, their relative proportions differ significantly in a tissue-specific manner.

## CHROMOSOMAL LOCATION

Genetic locus: IL1RAP (human) mapping to 3q28; Il1rap (mouse) mapping to 16 B2.

## SOURCE

IL-1RAcP (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of IL-1RAcP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47056 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

IL-1RAcP (N-20) is recommended for detection of IL-1RAcP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

IL-1RAcP (N-20) is also recommended for detection of IL-1RAcP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IL-1RAcP siRNA (h): sc-60831, IL-1RAcP siRNA (m): sc-60832, IL-1RAcP shRNA Plasmid (h): sc-60831-SH, IL-1RAcP shRNA Plasmid (m): sc-60832-SH, IL-1RAcP shRNA (h) Lentiviral Particles: sc-60831-V and IL-1RAcP shRNA (m) Lentiviral Particles: sc-60832-V.

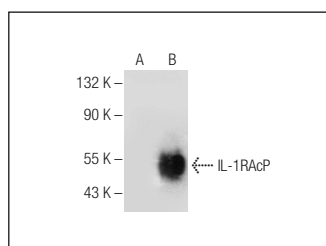
Molecular Weight of IL-1RAcP: 66 kDa.

Positive Controls: IL-1RAcP (m): 293T Lysate: sc-121041.

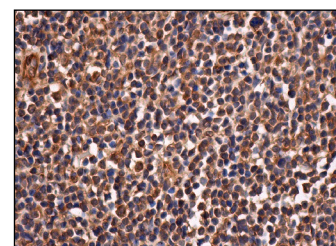
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



IL-1RAcP (N-20): sc-47056. Western blot analysis of IL-1RAcP expression in non-transfected: sc-117752 (A) and mouse IL-1RAcP transfected: sc-121041 (B) 293T whole cell lysates.



IL-1RAcP (N-20): sc-47056. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

## SELECT PRODUCT CITATIONS

- Zhu, J. and Carver, W. 2012. Effects of interleukin-33 on cardiac fibroblast gene expression and activity. Cytokine 58: 368-379.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **IL-1RAcP (D-5): sc-376872**, our highly recommended monoclonal alternative to IL-1RAcP (N-20).