

IL-1RAcP (D-5): sc-376872

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 α and IL-1 β , bind to a single known functional type-1 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 κ 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- β , 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.

REFERENCES

- Greenfeder, S.A., et al. 1995. Molecular cloning and characterization of a second subunit of the interleukin 1 receptor complex. *J. Biol. Chem.* 270: 13757-13765.
- Jensen, L.E. and Whitehead, A.S. 2003. Expression of alternatively spliced interleukin-1 receptor accessory protein mRNAs is differentially regulated during inflammation and apoptosis. *Cell. Signal.* 15: 793-802.
- Smeets, R.L., et al. 2003. Effectiveness of the soluble form of the interleukin-1 receptor accessory protein as an inhibitor of interleukin-1 in collagen-induced arthritis. *Arthritis Rheum.* 48: 2949-2958.

CHROMOSOMAL LOCATION

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

SOURCE

IL-1RAcP (D-5) is a mouse monoclonal antibody raised against amino acids 221-348 mapping within an internal region of IL-1RAcP of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-1RAcP (D-5) is available conjugated to agarose (sc-376872 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376872 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376872 PE), fluorescein (sc-376872 FITC), Alexa Fluor[®] 488 (sc-376872 AF488), Alexa Fluor[®] 546 (sc-376872 AF546), Alexa Fluor[®] 594 (sc-376872 AF594) or Alexa Fluor[®] 647 (sc-376872 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376872 AF680) or Alexa Fluor[®] 790 (sc-376872 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

IL-1RAcP (D-5) is recommended for detection of IL-1RAcP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-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.

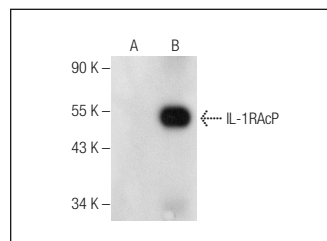
Molecular Weight of IL-1RAcP: 66 kDa.

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

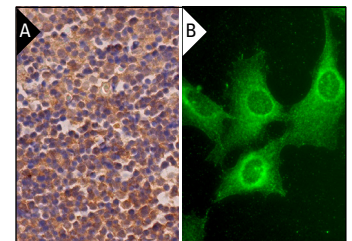
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IL-1RAcP (D-5): sc-376872. Western blot analysis of IL-1RAcP expression in non-transfected: sc-117752 (A) and human IL-1RAcP transfected: sc-121041 (B) 293T whole cell lysates.



IL-1RAcP (D-5): sc-376872. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal and non-germinal centers (A). Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic and membrane localization (B).

SELECT PRODUCT CITATIONS

- Park, S.B., et al. 2020. Blocking of the IL-33/ST2 signaling axis by a single-chain antibody variable fragment (scFv) specific to IL-33 with a defined epitope. *Int. J. Mol. Sci.* 21: E6953.

RESEARCH USE

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