

IL-1RII (6G5): sc-52678

BACKGROUND

Decoy receptors are structurally incapable of activating signaling pathways, but act as anti-inflammatory agents by sequestering agonists for actual signaling complexes. The type II IL-1 receptor (IL-1RII) acts as a decoy receptor for the chemokine interleukin-1 (IL-1). Additionally, the soluble form of IL-1R accessory protein (IL-1R AcP) increases the affinity of binding of IL-1 α and IL-1 β to IL-1RII 100-fold, but does not increase the affinity for another anti-inflammatory agent, IL-1R antagonist (IL-1Ra). The end result is a complex regulatory mechanism for IL-1 activated inflammation, whereby dexamethasone and other molecules inducing IL-1RII, function in an immunosuppressive and anti-inflammatory manner.

REFERENCES

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3. Dower, S.K., Sims, J.E., Cerretti, D.P. and Bird, T.A. 1992. The interleukin-1 system: receptors, ligands and signals. *Chem. Immunol.* 51: 33-64.
4. Slack, J., McMahan, C.J., Waugh, S., Schooley, K., Spriggs, M.K., Sims, J.E. and Dower, S.K. 1993. Independent binding of interleukin-1 α and interleukin-1 β to type I and type II IL-1 receptors. *J. Biol. Chem* 268: 2513-2524.
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6. Arend, W.P., Malyak, M., Smith, M.F. Jr., Whisenand, T.D., Slack, J.L., Sims, J.E., Giri, J.G. and Dower, S.K. 1994. Binding of IL-1 α , IL-1 β and IL-1 receptor antagonist by soluble IL-1 receptors and levels of soluble IL-1 receptors in synovial fluids. *J. Immunol.* 153: 4766-4774.

CHROMOSOMAL LOCATION

Genetic locus: IL1R2 (human) mapping to 2q11.2.

SOURCE

IL-1RII (6G5) is a mouse monoclonal antibody raised against IL-1RII of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} 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

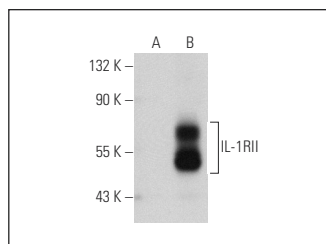
IL-1RII (6G5) is recommended for detection of IL-1RII of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-1RII siRNA (h): sc-72042, IL-1RII shRNA Plasmid (h): sc-72042-SH and IL-1RII shRNA (h) Lentiviral Particles: sc-72042-V.

Molecular Weight of IL-1RII: 46 kDa.

Positive Controls: IL-1RII (h): 293T Lysate: sc-115519.

DATA



IL-1RII (6G5): sc-52678. Western blot analysis of IL-1RII expression in non-transfected: sc-117752 (A) and human IL-1RII transfected: sc-115519 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Cheung, H.H., et al. 2010. Smac mimetic compounds potentiate interleukin-1 β -mediated cell death. *J. Biol. Chem.* 285: 40612-40623.
2. Sung, M.H., et al. 2015. *Azorella compacta* methanolic extract induces apoptosis via activation of mitogen-activated protein kinase. *Mol. Med. Rep.* 12: 6821-6828.

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.