

IL-1RI (JAMA-147): sc-12745

BACKGROUND

Three structurally related ligands for IL-1Rs have been described. These include two agonists, IL-1 α and IL-1 β , and a specific receptor antagonist, IL-1R α . Among the activities regulated by IL-1 are fever, acute phase responses, degradation of connective tissue and immunostimulatory activities. The IL-1R α molecule also binds specifically to IL-1Rs, but fails to initiate intracellular responses. Two distinct IL-1Rs have been identified, each of which belongs to the Ig superfamily and is widely expressed in a broad range of cells and tissues. Although many cell types co-express type I and type II receptors, there is no evidence that these constitute subunits of a single complex. The type II receptor has a short 29 amino acid cytoplasmic domain that does not seem sufficient for signaling, while in fact there is considerable evidence arguing that IL-1 signals exclusively through the type I IL-1R.

REFERENCES

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2. McMahan, C.J., et al. 1991. A novel IL-1 receptor, cloned from B cells by mammalian expression, is expressed in many cell types. *EMBO J.* 10: 2821-2832.
3. Dower, S.K., et al. 1992. The interleukin-1 system: receptors, ligands and signals. *Chem. Immunol.* 51: 33-64.
4. Slack, J., et al. 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.
5. Sims, J.E., et al. 1993. Interleukin-1 signaling occurs exclusively via the type I receptor. *Proc. Natl. Acad. Sci. USA* 90: 6155-6159.
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7. Giri, J.G., et al. 1994. Elevated levels of shed type II IL-1 receptor in sepsis. Potential role for type II receptor in regulation of IL-1 responses. *J. Immunol.* 153: 5802-5809.

CHROMOSOMAL LOCATION

Genetic locus: Il1r1 (mouse) mapping to 1 B.

SOURCE

IL-1RI (JAMA-147) is a hamster monoclonal antibody raised against purified extracellular domain of IL-1R1 of mouse origin.

PRODUCT

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

Available as fluorescein (sc-12745 FITC) or phycoerythrin (sc-12745 PE) conjugates for flow cytometry, 100 tests.

Available azide-free for neutralization, sc-12745 L, 200 μ g/0.1 ml.

APPLICATIONS

IL-1RI (JAMA-147) is recommended for detection of IL-1RI of mouse origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

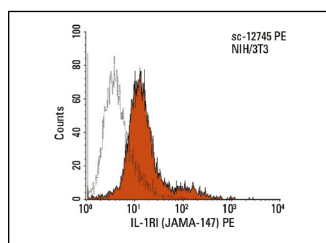
Suitable for use as control antibody for IL-1RI siRNA (m): sc-35652, IL-1RI shRNA Plasmid (m): sc-35652-SH and IL-1RI shRNA (m) Lentiviral Particles: sc-35652-V.

Molecular Weight of IL-1RI: 80 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml).

DATA



IL-1RI (JAMA-147) PE: sc-12745 PE. FCM analysis of NIH/3T3 cells. Black line histogram represents the isotype control, normal armenian hamster IgG: sc-2875.

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.