

p-IL-1RI (Tyr 496): sc-130195

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-1 receptors (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 coexpress 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. Human IL-1RI may be phosphorylated on Tyr 496.

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: IL1RI (human) mapping to 2q12.1.

SOURCE

p-IL-1RI (Tyr 496) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Tyr 496 of IL-1RI of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

p-IL-1RI (Tyr 496) is recommended for detection of Tyr 496 phosphorylated IL-1RI 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)], 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-1RI siRNA (h): sc-35651, IL-1RI shRNA Plasmid (h): sc-35651-SH and IL-1RI shRNA (h) Lentiviral Particles: sc-35651-V.

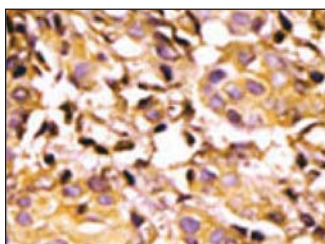
Molecular Weight of p-IL-1RI: 80 kDa.

Positive Controls: mouse liver tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz MarkerTM compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz MarkerTM 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruzTM Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruzTM: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-IL-1RI (Tyr 496): sc-130195. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

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.