

## IL-1RAcP/IL-1 R3 Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78146
Synonyms:	IL1RAP; C3orf13; IL-1 R3; IL-1 RAcP
Species:	Human
Source:	HEK293
Accession:	Q9NPH3 (S21-E359)
Gene ID:	3556
Molecular Weight:	52-70 kDa

### PROPERTIES

<b>Biological Activity</b>	Immobilized Biotinylated Human IL-1R3 at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Anti-IL-1R3 Antibody, hFc Tag with the EC <sub>50</sub> of 11.3ng/ml determined by ELISA.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

#### Background

Interleukin-1 receptor accessory protein (IL-1RAcP), also known as IL-1 R3, belongs to the immunoglobulin (Ig) superfamily. IL-1RAcP can be detected in liver, skin, placenta, thymus and lung.

The human IL-1RAcP protein shares 89.12% a.a sequence identity with mouse and 88.95% identity with rat.

IL-1RAcP contains three Ig-like domains and a cytoplasmic domain named Toll/IL-1 receptor (TIR) (position: 403-546 a.a), which has been implicated in signal transduction. IL-1RAcP also contains a single transmembrane region. IL-1RAcP is a co-receptor for IL1RL2, IL1R1 and IL1RL1 in the IL-36, IL-1 and IL-33 signaling system, respectively. IL-1RAcP is an indispensable molecule in the IL-1 receptor signal transduction complex, links events at the plasma membrane level to downstream signaling pathways, mediates interleukin-1-dependent transcription factor activation and gene expression.

IL-1RAcP plays an essential role in the inflammatory process and can be used for the research of obesity, diabetics, endometriosis, atherosclerosis, and so on<sup>[1][2][3]</sup>.

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## REFERENCES

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- [1]. Neveu PJ, et al. Mechanisms of behavioral and neuroendocrine effects of interleukin-1 in mice. *Ann N Y Acad Sci.* 2000;917:175-85.
- [2]. Zarezadeh Mehrabadi A, et al. The roles of interleukin-1 receptor accessory protein in certain inflammatory conditions. *Immunology.* 2022 May;166(1):38-46.
- [3]. Wesche H, et al. The interleukin-1 receptor accessory protein (IL-1RAcP) is essential for IL-1-induced activation of interleukin-1 receptor-associated kinase (IRAK) and stress-activated protein kinases (SAP kinases). *J Biol Chem.* 1997 Mar 21;272(12):7727-31.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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