

IL-1RAcP/IL-1 R3 Protein, Mouse (350a.a, HEK293, His)

Cat. No.:	HY-P77418
Synonyms:	Interleukin-1 Receptor Accessory Protein; IL-1RAcP; Interleukin-1 Receptor 3; IL-1R3; IL1RAP; C3orf13
Species:	Mouse
Source:	HEK293
Accession:	Q61730 (M1-K350)
Gene ID:	16180
Molecular Weight:	Approximately 39.7 kDa.

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>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. IL-1RAcP expression correlates with IL-1 responsiveness in a subclone of the murine lymphoma cell line, EL4.</p> <p>The mouse IL-1RAcP protein shares 89.12% a.a sequence identity with human, 95.09% identity with rat.</p> <p>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.</p> <p>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^{[1][2][3]}.</p>
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REFERENCES

[1]. Neveu PJ, et al. Mechanisms of behavioral and neuroendocrine effects of interleukin-1 in mice. *Ann NY 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.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA