

## Recombinant Mouse Il1rn protein

Cat. No. Il1rn-546M Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Mouse Il1rn protein was expressed in Escherichia coli.
<b>Species</b>	Mouse
<b>Source</b>	E.coli
<b>ProteinLength</b>	152
<b>Description</b>	<p>IL-1RA was initially called the IL-1 inhibitor which is encoded by the IL1RN gene and it is a member of the interleukin 1 cytokine family. IL-1RA is secreted by various types of cells including immune cells, epithelial cells, and adipocytes. IL-RA has functions of inhibiting the activity of interleukin-1 by binding to receptor IL1R1 and preventing its association with the coreceptor IL1RAP for signaling. IL-1RA is also used in the treatment of rheumatoid arthritis, an autoimmune disease in which IL-1 plays a key role. The murine IL-1RA is a single non-glycosylated polypeptide chain containing 152 amino acids and it has been shown to block the inflammatory responses induced by IL-1 both in vitro and in vivo. The protein shows 26 % amino acid homology to IL-1<math>\beta</math> and 19% homology to IL-1<math>\alpha</math>. It also shares 90 % a.a. sequence identity with rat IL-1RA.</p>
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by inhibiting IL-1 $\alpha$ -dependent proliferation of murine D10S cells is less than 50 ng/ml,

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	corresponding to a specific activity of $> 2.0 \times 10^4$ IU/mg in the presence of 50 pg/ml rHuIL-1 $\alpha$ .
<b>Molecular Mass</b>	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
<b>AA Sequence</b>	RPSGKR PCKMQAFRIWDTN QKTFYLRNNQLIAGYLQGPNIKLEEKIDMVPIDLHSVFL GIHGGKLC LSCAKSGDDIKLQLEEVNITDLSKNKEEDKRFTFIRSEKGPPTTSFESAAC PGWFLCTTLEADRPVSLTNTPEEPLIVTKFYFQEDQ
<b>Endotoxin</b>	Less than 1 EU/g of rMuIL-1RA as determined by LAL method.
<b>Purity</b>	>97% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20$ centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

<b>Gene Name</b>	Il1rn
<b>Official Symbol</b>	Il1rn

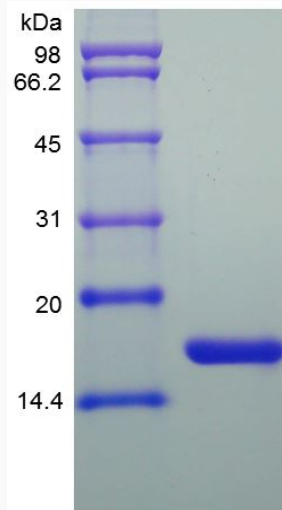
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<b>Synonyms</b>	IL1RN; interleukin 1 receptor antagonist; interleukin-1 receptor antagonist protein; IRAP; IL-1RN; IL1 inhibitor; IL-1ra; F630041P17Rik;
<b>Gene ID</b>	16181
<b>mRNA Refseq</b>	NM_001039701
<b>Protein Refseq</b>	NP_001034790
<b>UniProt ID</b>	Q542W1

**SDS-PAGE of Il1rn-546M**



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