

## Recombinant Human IL1RN protein

Cat. No. IL1RN-05H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human IL1RN protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	152
<b>Description</b>	<p>Interleukin-1 receptor antagonist (IL-1RA) is a member of the IL-1 family. IL1RA is secreted by various types of cells including immune cells, epithelial cells, and adipocytes, and is a natural inhibitor of the pro-inflammatory effect of IL1<math>\beta</math>. This protein inhibits the activities of interleukin 1, alpha (IL1A) and interleukin 1, beta (IL1B), and modulates a variety of interleukin 1 related immune and inflammatory responses. IL-4 and IL-13 have been shown to amplify the stimulatory effect of IL1-beta on the production of soluble and intracellular forms of IL1-RA. The regulated expression of IL1RA in various cell types has been shown to be influenced by cytokines. In synovial fibroblasts the synthesis of IL-1RA is markedly enhanced by IL-1, TNF-alpha, or PDGF. The protein shows 26 % amino acid homology to IL1<math>\beta</math> and 19 % homology to IL1<math>\alpha</math>.</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 40 ng/ml,

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	corresponding to a specific activity of $> 2.5 \times 10^4$ IU/mg in the presence of 50 pg/ml rHuIL-1 $\alpha$ .
<b>Molecular Mass</b>	Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
<b>AA Sequence</b>	RPSGRKSSKMQAFRIWDVNQKTFYLRNNQLVAGYLQGPNVNLEEKIDVVPIEPHALF LGIHGGKMCLSCVKSGDETRLQLEAVNITDLSENKQDKRFAFIRSDSGPTTSFESA ACPGWFLCTAMEADQPVSLTNMPDEGVMVTKFYFQEDE
<b>Endotoxin</b>	Less than 1 EU/g of rHuIL-1RA as determined by LAL method.
<b>Purity</b>	>96% 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; ICIL 1RA; IL 1RN; IL1F3; IL1RA; interleukin 1 receptor antagonist protein; intracellular interleukin 1 receptor antagonist; IRAP; MGC10430; IL1 inhibitor; IL1RN (IL1F3); type II interleukin-1 receptor antagonist; intracellular IL-1 receptor antagonist type II; intracellular interleukin-1 receptor antagonist (icIL-1ra); DIRA; MVCD4; IL-1RN; IL-1ra; IL-1ra3; ICIL-1RA;
<b>Gene ID</b>	3557
<b>mRNA Refseq</b>	NM_000577
<b>Protein Refseq</b>	NP_000568
<b>MIM</b>	147679
<b>UniProt ID</b>	P18510

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