

Recombinant Human IL1RN protein

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

SPECIFICATION

Product Overview	Recombinant Human IL1RN protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	152
Description	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 IL1β. 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 IL1β and 19 % homology to IL1α.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by inhibiting IL-1 α -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 α .
Molecular Mass	Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
AA Sequence	RPSGRKSSKMQAFRIWDVNQKTFYLRNNQLVAGYLQGPNVNLEEKIDVVPIEPHALF LGIHGGKMCLSCVKSGDETRLQLEAVNITDLSENKQDKRFAFIRSDSGPTTSFESA ACPGWFLCTAMEADQPVSLTNMPDEGVMVTKFYFQEDE
Endotoxin	Less than 1 EU/g of rHuIL-1RA as determined by LAL method.
Purity	>96% by SDS-PAGE and HPLC analysis.
Storage	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.
Reconstitution	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 ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IL1RN
Official Symbol	IL1RN

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Synonyms	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;
Gene ID	3557
mRNA Refseq	NM_000577
Protein Refseq	NP_000568
MIM	147679
UniProt ID	P18510
SDS-PAGE of IL1RN-05H	