

Growth Factor Data Sheet

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Interleukin-1 receptor antagonist (IL1RN) is a member of the IL1 family. IL1RN is secreted by various types of cells including immune cells, epithelial cells and adipocytes, and is a natural inhibitor of the proinflammatory effect of IL1B. This protein also inhibits the activities of IL1A and modulates a variety of interleukin 1 related immune and inflammatory responses. IL4 and IL13 have been shown to amplify the stimulatory effect of IL1B on the production of soluble and intracellular forms of IL1RN. The regulated expression of IL1RN in various cell types has been shown to be influenced by cytokines. In synovial fibroblasts the synthesis of IL1RN is markedly enhanced by IL1, TNF- α , or PDGF. The protein shows 26% amino acid homology to IL1B and 19% homology to IL1A.

Catalog Number	1110-01C
Product Name	IL1RN (IL-1RA), Human
	Recombinant Human Interleukin-1RN
	IL1RN, IL1RA
	Interleukin 1 Receptor Antagonist
Source	Escherichia coli
MW	~17.1 kDa (152 amino acids)
Sequence	RPSGRKSSKM QAFRIWDVNQ KTFYLRNNQL VAGYLQGPNV NLEEKIDVVP IEPHALFLGI
	HGGKMCLSCV KSGDETRLQL EAVNITDLSE NRKQDKRFAF IRSDSGPTTS FESAACPGWF
	LCTAMEADQP VSLTNMPDEG VMVTKFYFQE DE
Accession Number	<u>P18510</u>
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED₅ as determined by
	inhibiting IL-1α-dependent proliferation of murine D10S cells is less than 40 ng/ml,
	corresponding to a specific activity of $>2.5 \times 10^4$ IU/mg in the presence of 50 pg/ml
	rHulL-1α
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term
	storage. The reconstituted sample can be apportioned into working aliquots and stored
	at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the
	bottom. Reconstitute in a siliconized tube using sterile distilled water or aqueous buffer
	that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions
	are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at
	-80°C. Further dilutions should be made in appropriate buffered solutions containing BSA
	or serum.

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