



Technical Data Sheet

Recombinant Human Interleukin-1 receptor antagonist (rHu IL-1ra)

Human Interleukin-1 receptor antagonist

Interleukin-1 receptor antagonist (IL-1ra) is a member of the IL-1 family. Endogenous IL-1ra is produced in numerous animal disease models as well as in human autoimmune and chronic inflammatory diseases. It binds to IL-1 receptors in competition with IL-1, but does not elicit intracellular response from this binding. Its role in counteracting the proinflammatory effects of IL-1 is being studied by numerous research groups. IL-4 and IL-13 have been shown to amplify the stimulatory effect of IL-1-beta on the production of soluble and intracellular forms of IL-1ra. 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.

Catalog Number:	RC212-12C
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.0 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
Quantity:	20ug/100ug/1000ug
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by the dose-dependant inhibition of IL-1 stimulation of D10S cells was found to be 0.5 ng/ml, corresponding to a Specific Activity of 2.0 x 10 ⁶ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
AA Sequence:	MRPSGRKSSK MQAFRIWDVN QKTFYLRNNO LVAGYLQGN VNLEEKIDVPIEPHALFLG IHGGKMCLSC VKSGDETRLQ LEAVNITDLS ENRKQDKRFA FIRSDSGPTT SFESAACPGW FLCTAMEADQ PVSLTNMPDE GVMVTKFYFQ EDE
Endotoxin:	Less than 1EU/µg of rHuIL-1ra as determined by LAL method.
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°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated



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Usage:

freeze/thaw cycles.

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