

PRODUCT DATA SHEET



Bioworld Technology, Inc.

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

Catalog Number: PR1052

Source: Escherichia coli

Quantity: 20µg/100µg/1.0mg

Description

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 IL-1ra 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.

Molecular Weight:

Approximately 17.0 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by the dose-dependent inhibition of IL-1 stimulation of D10S cells was found to be 0.5 ng/ml, corresponding to a Specific Activity of 2.0×10^6 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

M R P S G R K S S K M Q A F R I W D V N Q K T F Y L
R N N Q L V A G Y L Q G P N V N L E E K I D V V P I E
P H A L F L G I H G G K M C L S C V K S G D E T R L Q
L E A V N I T D L S E N R K Q D K R F A F I R S D S G P
T T S F E S A A C P G W F L C T A M E A D Q P V S L T
N M P D E G V M V T K F Y F Q E D E

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 $<-20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, 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 $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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