

Recombinant Human Interleukin-1 Receptor Antagonist (rHuIL-1RA)

PrimeGene Technical Data Sheet

Catalog Number:	101-01C
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.1 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
Quantity:	20µg/100µg/1000µg
AA Sequence:	RPSGRKSSKM QAFRIWDVNQ KTFYLRNNQL VAGYLQGPV NLEEKIDVVP IEPHALFLGI HGGKMCLSCV KSGDETRLQL EAVNITDLSE NRKQDKRFAF IRSDSGPTTS FESAACPGWF LCTAMEADQP VSLTNMPDEG VMVTKFYFQE DE
Purity:	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ 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 × 10 ⁴ IU/mg in the presence of 50 pg/ml rHuIL-1α.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1 EU/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.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Human Interleukin-1 Receptor Antagonist

Interleukin-1 receptor antagonist (IL-1RA) is a member of the IL-1 family. IL-1RA 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 IL-1β. This protein inhibits the activities of interleukin 1, alpha (IL-1α) and interleukin 1, beta (IL-1β), 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 IL-1-beta on the production of soluble and intracellular forms of IL1-RA. 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-α, or PDGF. The protein shows 26 % amino acid homology to IL-1β and 19 % homology to IL-1α.