

IL1rn

## Recombinant Rat Interleukin-1 Receptor Antagonist

<b>Catalog No.</b>	CS499A CS499B CS499C	<b>Quantity:</b>	10 µg 50 µg 1 mg
<b>Alternate Names:</b>	IL-1RN, IL-1RA, IL1 inhibitor; IRAP, interleukin-1 receptor antagonist protein		
<b>Description:</b>	<p>IL-1RA was initially called the IL-1 inhibitor which is encoded by the IL1RN gene and it is a member of the interleukin 1 cytokine family. IL-1RA is secreted by various types of cells including immune cells, epithelial cells, and adipocytes. IL-RA has functions of inhibiting the activity of Interleukin-1 by binding to receptor IL1R1 and preventing its association with the coreceptor IL1RAP for signaling. IL-1RA is also used in the treatment of rheumatoid arthritis, an autoimmune disease in which IL-1 plays a key role. The rat IL-1RA is a single non-glycosylated polypeptide chain containing 152 amino acids and it has been shown to block the inflammatory responses induced by IL-1 both <i>in vitro</i> and <i>in vivo</i>. Rat IL-1RA shares 89 % and 73 % a.a. sequence homology with mouse and human IL-1RA.</p> <p>Recombinant Rat IL-1 Receptor Antagonist is a single non-glycosylated polypeptide chain containing 152 amino acids.</p>		
<b>Gene ID:</b>	60582		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	17.3 kDa		
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.		
<b>Purity:</b>	>96 % by SDS-PAGE and HPLC analyses.		
<b>Endotoxin Level:</b>	<1 EU/µg as determined by LAL method.		
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> determined by inhibiting IL-1α-dependent proliferation of mouse D10S cells is less than 150 ng/ml.		
<b>Specific Activity:</b>	>6.7 × 10E3 IU/mg in the presence of 50 pg/ml recombinant rat IL-1α.		
<b>Amino Acid Sequence:</b>	HPAGKRPCCKM QAFRIWDTNQ KTFYLRNNQL IAGYLQGPNT KLEEKIDMVP IDFRNVFLGI HGGKLCLSCV KSGDDTKLQL EEVNITDLNK NKEEDKRFTF IRSETGPTTS FESLACPGWF LCTTLEADHP VSLTNTPKPEP CTVTKFYFQE DQ		
<b>Reconstitution:</b>	<b>Centrifuge vial prior to opening.</b> Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
<b>Storage &amp; Stability:</b>	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>		

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