

Active Recombinant Human Interleukin 1 Receptor Antagonist

Cat. No. IL1RN-115H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human interleukin 1 receptor antagonist (IL-1ra) protein sequence (including the signal peptide sequence, and the mature human Interleukin-1 receptor antagonist sequence) was expressed in modified <i>human 293 cells</i> .
Species	Human
Source	HEK293
Description	IL-1 receptor antagonist (IL-1ra) is a naturally occurring protein that plays an important role in regulating the activity of IL-1 by competitively binding to the IL-1 receptor and thereby inhibiting IL-1 signaling activation in target cells. The expression of IL-1ra has been detected in bone marrow monocytes, macrophages, neutrophils and T cells.
Amino Acid Sequence	RPSGRKSSKM QAFRIW DVNQKT FYLRNN QLVAGY LQGPNVLEE KIDVVPIEP A LFLGIH GGKMCLS CVKSGDET RLQLEA VNITDLSN RKQDKRFAF IRSDSGPTT SFESAACPGWFLCTAMEADQPVSLTNMPDEGVMVTKFYFQEDE.
Molecular Mass	IL-1 receptor antagonist (IL-1ra) migrates as a broad band between 18 and 23 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with the unmodified IL-1ra that has a predicted molecular mass of 17.1 kDa.
pI	IL-1ra separates into a number of isoforms with a pI between 5.4 and 6.3 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with

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	the unmodified IL-1ra that has a predicted pI of 5.4.
% Carbohydrate	Purified IL-1ra consists of 5-25% carbohydrate by weight.
Glycosylation	IL-1ra has N-linked oligosaccharides.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
Activity	The ED ₅₀ of IL-1ra is typically 30-100 ng/ml as measured by its ability to inhibit IL-1 mediated proliferation using the murine D10S cell line.

GENE INFORMATION

Gene Name	IL1RN interleukin 1 receptor antagonist [Homo sapiens]
Synonyms	IL1RN; interleukin 1 receptor antagonist; DIRA; ICIL-1RA; IL-1ra3; IL1F3; IL1RA; IRAP; MGC10430; MVCD4; IL1RN (IL1F3); OTTHUMP00000203730; intracellular IL-1 receptor antagonist type II; intracellular interleukin-1 receptor antagonist (icIL-1ra); type II interleukin-1 receptor antagonist
Gene ID	3557

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mRNA Refseq	NM_000577
Protein Refseq	NP_000568
MIM	147679
UniProt ID	P18510
Chromosome Location	2q14.2
Function	cytokine activity; interleukin-1 receptor antagonist activity; protein binding

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