

IL-1RA/IL-1RN Protein, Rat (C-His)

Cat. No.:	HY-P73894A
Synonyms:	Interleukin-1 receptor antagonist protein; IL-1RN; IL-1ra; Il1rn
Species:	Rat
Source:	E. coli
Accession:	P25086 (H27-Q178)
Gene ID:	60582
Molecular Weight:	Approximately 19.94 kDa

PROPERTIES

AA Sequence	<p> H P A G K R P C K M Q A F R I W D T N Q K T F Y L R N N Q L I A G Y L Q G P N T K L E E K I D M V P I D F R N V F L G I H G G K L C L S C V K S G D D T K L Q L E E V N I T D L N K N K E E D K R F T F I R S E T G P T T S F E S L A C P G W F L C T T L E A D H P V S L T N T P K E P C T V T K F Y F Q E D Q </p>
Biological Activity	Measured by its ability to inhibit proliferation in CTLL κ 2 mouse cytotoxic T cells in the presence of 50 pg/mL of rhIL-1 alpha. The ED ₅₀ for this effect is 84.78 ng/mL, corresponding to a specific activity is 1.180 \times 10 ⁴ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The IL-1RA/IL-1RN mutant protein functions as a potent anti-inflammatory antagonist within the interleukin-1 family, specifically targeting proinflammatory cytokines like interleukin-1beta/IL1B and interleukin-1alpha/IL1A. Engineered to enhance its inhibitory capabilities, this mutant variant plays a critical role in safeguarding the host from immune dysregulation and preventing uncontrolled systemic inflammation triggered by IL1 in response to various innate stimulatory agents, including pathogens. By offering an optimized defense against IL1-mediated inflammatory responses, the mutant
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protein contributes significantly to maintaining immune balance and preventing excessive inflammation.

Caution: Product has not been fully validated for medical applications. For research use only.

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