ReliaTech GmbH

Specification/Data Sheet

Recombinant Rat IL-1 alpha

20161114BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**R20-024S**
Size:	2 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	*24493*
Synonyms:	Il1a; IL-1 alpha

IL-1α is a non-secreted proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1α and IL-1β binds to the same receptor and has similar if not identical biological properties. These cytokines have a broad range of activities including, stimulation of thymocyte proliferation, by inducing IL-2 release, B-cell maturation and proliferation, mitogenic FGF-like activity and the ability to stimulate the release of prostaglandin and collagenase from synovial cells. However, whereas IL-1β is a secreted cytokine, IL-1α is predominantly a cell-associated cytokine. Recombinant rat IL-1α is a 17.7 kDa protein containing 155 amino

Sequence

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MAPHSFQNNL RYKLIRIVKQ EFIMNDSLNQ NIYVDMDRIH
LKAASLNDLQ LEVKFDMYAY SSGGDSKYPV TLKVSNTQLF
VSAQGEDKPV LLKEIPETPK LITGSETDLI FFWEKINSKN
YFTSAAFPEL LIATKEQSQV HLARGLPSMI DFQIS
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Database References

Protein RefSeq:	NP_058715.1
Uniprot ID:	P16598
mRNA RefSeq:	NM_017019

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	155
MW:	17.7 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 6 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in 0.5X PBS to a concentration of 0.1-1.0 mg/m. *Do not vortex*. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: The ED_{50} as determined by the dose-dependent proliferation of murine D10S cells is < 0.005 ng/ml, corresponding to a specific activity of > 2 x 10^8 units/mg.

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