HUMANZYME

PRODUCT DATA SHEET

A XKine™ Product

Recombinant Human IL-1 alpha (Interleukin-1 alpha)

Product Description

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 bind to the same receptor and have similar, if not identical, biological properties. These cytokines have a broad range of activities including the stimulation of thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, mitogenic FGF-like activity and 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 Human IL-1α is an 18.0 kDa protein containing 159 amino acid residues.

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	Typically ≤0.001 ng/mL ED_{50}
Purity	≥98%
Endotoxin	<1.0 EU/μg
Molecular Mass	18.0 kDa
Formulation	10mM Tris, pH 8.0 + 50 mM NaCl
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by its ability to stimulate the proliferation of mouse D10S cells.

AA Sequence

SAPFSFLSNV KYNFMRIIKY EFILNDALNQ
SIIRANDQYL TAAALHNLDE AVKFDMGAYK
SSKDDAKITV ILRISKTQLY VTAQDEDQPV
LLKEMPEIPK TITGSETNLL FFWETHGTKN
YFTSVAHPNL FIATKQDYWV CLAGGPPSIT
DFQILENQA

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

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