

## IL-1 $\beta$ , Rat (HEK 293-expressed)

**Cat. No.:** Z03042-25

**Size:** 25.0 ug

**Synonyms:** Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)

### Description:

Interleukin-1 $\beta$  is a proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1 alpha and IL-1 beta 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-1 beta is a secreted cytokine, IL-1 alpha is predominantly a cell-associated cytokine.

### Amino Acid Sequence:

```
00001 VPIRQLHCRL RDEQQKCLVL SDPCCLKALH LNGQNISQQV  
00041 VFSMSFVQGE TSNDKIPVAL GLKGLNLYLS CVMKDGTPTL  
00081 QLESVDPKQY PKKKMEKRFV FNKIEVTKV EFESAQFPNW  
00121 YISTSQAHR PVFLGNSNGR DIVDFTMEPV SS
```

**Source:** HEK 293

**Species:** Rat

**Biological Activity:** ED<sub>50</sub> < 10 pg/ml, measured in a cell proliferation assay using D10S cells, corresponding to a specific activity of >1 x 10<sup>8</sup> units/mg

**Molecular Weight:** 17 22 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

**Purity:** > 95% as analyzed by SDS-PAGE.

**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant Rat Interleukin 1 $\beta$ (IL-1 $\beta$ ) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Rat IL-1 $\beta$  should be stable up to 1 week at 4°C or up to 2 months at -20°C.