

# Recombinant Equine Interleukin-1 beta

#R00350

Size: 10 µg/100 µg/500 µg

## Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
  - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
  - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

## Background

Interleukin-1 beta (IL-1β) is a non-secreted proinflammatory cytokine produced mainly by activated macrophages, as well as neutrophils, epithelial cells, and endothelial cells. It possesses metabolic, physiological, haematopoietic activities, and plays one of the central roles in the regulation of the immune responses. Both IL-1α and IL-1β binds to the same receptor and has similar but not identical biological properties. Recombinant equine interleukin-1 beta is a 17 kDa protein containing 153 amino acid residues and it shares 63 %~70 % a.a. sequence identity with canine, cotton rat, porcine, feline, human, mouse, rat, and rhesus IL1β.

## AA Sequence

AAMHSVNCRLRDIYHKSLVLSGACELQAVHLNGENT  
NQQVVFCSFVQGEEETDKIPVALGLKEKNLYLSCG  
MKDGKPTLQLETVDPNITYPKRKMEKRFVFNKMEIKG

NVEFESAMYPNWWYISTSQAEKSPVFLGNTRGGRDIT  
DFIMEITSA

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

## Product Specification

|                     |                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms            | IL-1 beta                                                                                                                                                                                                                                   |
| Accession           | Q28386                                                                                                                                                                                                                                      |
| GeneID              | 100034237                                                                                                                                                                                                                                   |
| Species             | Equine                                                                                                                                                                                                                                      |
| Source              | Escherichia coli.                                                                                                                                                                                                                           |
| Molecular Weight    | Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.                                                                                                                                             |
| Purity              | > 95 % by SDS-PAGE and HPLC analyses.                                                                                                                                                                                                       |
| Biological Activity | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine D10S cells is less than 20 pg/ml, corresponding to a specific activity of > 5.0 × 10 <sup>7</sup> IU/mg. |

|             |                                                                                                       |
|-------------|-------------------------------------------------------------------------------------------------------|
| Physical    | Sterile Filtered White lyophilized                                                                    |
| Appearance  | (freeze-dried) powder.                                                                                |
| Formulation | Lyophilized from a 0.2 μm<br>filtered concentrated solution in<br>1 × PBS, pH 7.4, 0.1 %<br>Tween-80. |
| Endotoxin   | Less than 1 EU/μg of rEqIL-1β<br>as determined by LAL method.                                         |