

## Recombinant Human IL1B protein

Cat. No. IL1B-02H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Recombinant Human IL1B protein was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ProteinLength    | 153                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description      | Interleukin-1 beta (IL-1 $\beta$ ) 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-1 $\alpha$ and IL-1 $\beta$ binds to the same receptor and has similar but not identical biological properties; The mature human IL1 $\beta$ shares 96 % amino acid sequence identity with rhesus and 67 % -78 % with canine, mouse and rat IL-1 $\beta$ . |
| Form             | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Bio-activity     | Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine D10S cells is less than 1.0 pg/ml, corresponding to a specific activity of > 1.0 $\times$ 10 <sup>9</sup> IU/mg.                                                                                                                                                                                                                                                                                                                                                                     |
| Molecular Mass   | Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | APVRSLNCTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFMSFSVQGEESNDK<br>IPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNKLFEFES<br>AQFPNWWYISTSQAENMPVFLGGTKGGQDITDFTMQFVSS                                                                                                                                                                                                                               |
| <b>Endotoxin</b>      | Less than 1 EU/g of rHuIL-1 $\beta$ as determined by LAL method.                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>         | >97% by SDS-PAGE and HPLC analysis.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage</b>        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.                                                                                                   |
| <b>Reconstitution</b> | 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 $\leq$ -20 centigrade. Further dilutions should be made in appropriate buffered solutions. |

## GENE INFORMATION

|                        |                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">IL1B</a>                                                                                                                                        |
| <b>Official Symbol</b> | <a href="#">IL1B</a>                                                                                                                                        |
| <b>Synonyms</b>        | IL1B; interleukin 1, beta; interleukin-1 beta; IL 1B; IL1 BETA; IL1F2; IL-1 beta; catabolin; preinterleukin 1 beta; pro-interleukin-1-beta; IL-1; IL1-BETA; |
| <b>Gene ID</b>         | <a href="#">3553</a>                                                                                                                                        |
| <b>mRNA Refseq</b>     | <a href="#">NM_000576</a>                                                                                                                                   |

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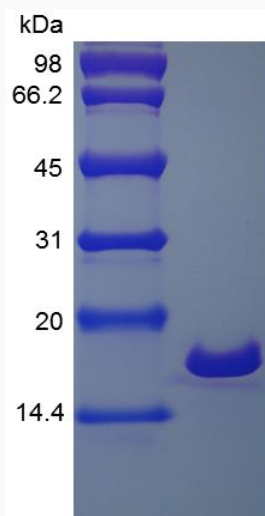
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**Protein Refseq** NP\_000567

**MIM** 147720

**UniProt ID** P01584

**SDS-PAGE of IL1B-02H**



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