

## Recombinant Rat Il1a protein

Cat. No. Il1a-573R    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Recombinant Rat Il1a protein was expressed in Escherichia coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Species          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ProteinLength    | 156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description      | Interleukin-1 alpha (IL-1 $\alpha$ ) 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. Recombinant rat IL-1 alpha contains 150 amino acids which is a single non-glycosylated polypeptide. |
| Form             | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20 mM Tris, 150 mM NaCl, pH 8.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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 0.005 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^8$ IU/mg.                                                                                                                                                                                                                                                                                                                                         |
| Molecular Mass   | Approximately 17.8 kDa, a single non-glycosylated polypeptide chain containing 156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | amino acids.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>    | SAPHSFQNNLRYKLIRIVKQEFIMNDSLQNIYVDMDRHLKAASLNDLQLEVKFDMY<br>AYSSGGDDSKYPVTLKVSNTQLFVSAQGEDKPVLLKEIPETPKLITGSETDLIFFWEKI<br>NSKNYFTSAAFPELLIATKEQSQVHLARGLPSPMIDFQIS                                                                                                                                                                                                                         |
| <b>Endotoxin</b>      | Less than 1 EU/g of rRtIL-1α 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 ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions. |

## GENE INFORMATION

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| <b>Gene Name</b>       | IL1a                                                        |
| <b>Official Symbol</b> | IL1a                                                        |
| <b>Synonyms</b>        | IL1A; interleukin 1 alpha; interleukin-1 alpha; IL-1 alpha; |
| <b>Gene ID</b>         | 24493                                                       |

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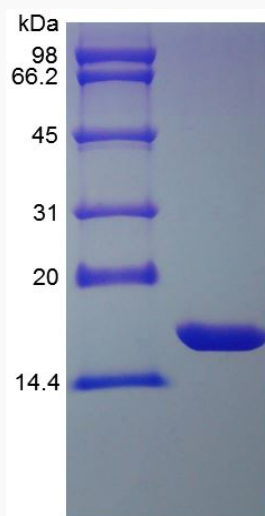
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mRNA Refseq NM\_017019

Protein Refseq NP\_058715

UniProt ID P16598

SDS-PAGE of Il1a-  
573R



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