

Recombinant Human IL-1 alpha Protein

Catalog No.: RP03505

Sequence Information

Species Gene ID

Human 3552

Swiss Prot Tags

P01583 NO-Tag

Synonyms

IL1A, IL1F1, Interleukin-1 alpha, IL-1 alpha, Hematopoietin-1

Product Information

Source Purification

E. coli ≥ 95 % as determined by SDS-PAGE.

Calculated MW Observed MW

18.05 kDa 15-20 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from 0.22μm filtered solution in PBS (pH 7.4).

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is a pleiotropic cytokine involved in various immune responses, inflammatory processes, and hematopoiesis. This cytokine is produced by monocytes and macrophages as a proprotein, which is proteolytically processed and released in response to cell injury, and thus induces apoptosis. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. It has been suggested that the polymorphism of these genes is associated with rheumatoid arthritis and Alzheimer's disease.

Basic Information

Description

Recombinant Human IL-1 alpha Protein is produced by *E. coli* Cells system. The target protein is expressed with sequence (Ser113-Ala271) of Human IL-1 alpha (Accession #NP_000566.3) fused with No tag.

Activity

Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells. The ED50 for this effect is 9.39-37.58 pg/mL, corresponding to a specific activity of $2.66 \times 10^7 \sim 1.06 \times 10^8$ units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

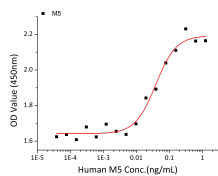
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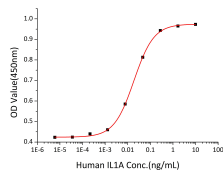
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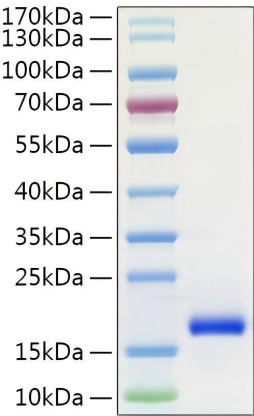
Validation Data



At concentrations ranging from 0.01 to 5 ng/mL, M5 factor (RP03505 IL1A,RP00212 IL17A,RP01616 IL22,RP00993 TNFα,RP00054 OSM)promotes the proliferation of HaCaT cells.



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Recombinant Human IL-1 alpha Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.