

GMP Recombinant Human IL1A protein

Cat. No. IL1A-4315HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL1A protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	159
Description	Interleukin-1 alpha (IL-1α) 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 identical biological properties. Among various species, the amino acid sequence of mature IL-1α is conserved 60% to 70% and human IL-1 has been found to be biologically active on murine cell lines. IL-1α recently started to find effective application in cosmetic and dermatological formulations, which allow to significantly harmonizing derma architecture.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in 25 mM Tris-HCl, pH8.0.
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 $> 1.0 \times 10^9$ IU/mg.

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Molecular Mass	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.
AA Sequence	SAPFSFLSNVKYNFMRIIKYEFILNDALNQSIIRANDQYLTAALHNLDEAVKFDMGAY KSSKDDAKITVILRISKTKQLYVTAQDEDQPVLLKEMPEIPKTITGSETNLLFFWETHGT KNYFTSVAHPNLFIAITKQDYWVCLAGGPPSITDFQILENQA
Endotoxin	Less than 0.01 EU/g of rHuIL-1α GMP as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	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.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IL1A
Official Symbol	IL1A
Synonyms	IL1A; interleukin 1, alpha; IL1; interleukin-1 alpha; hematopoietin 1; IL 1A; IL1 ALPHA; IL1F1; preinterleukin 1 alpha; pro interleukin 1 alpha; IL-1 alpha; hematopoietin-1; pro-interleukin-1-alpha; IL-1A; IL1-ALPHA;

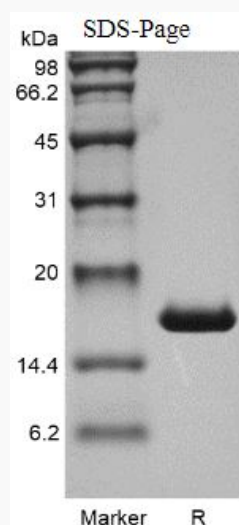
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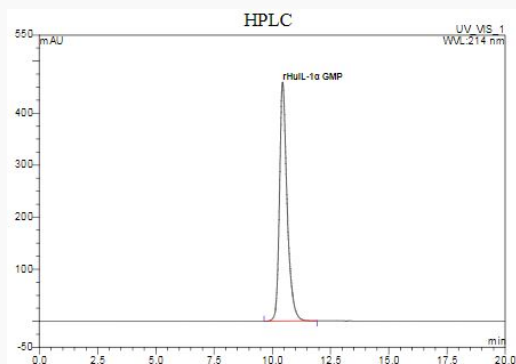
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Gene ID	3552
mRNA Refseq	NM_000575
Protein Refseq	NP_000566
MIM	147760
UniProt ID	P01583

SDS-PAGE of IL1A-4315HG



HPLC of IL1A-4315HG



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