

Interleukin 1 Beta (IL1b) Active Protein | IL1b active protein

Active Interleukin 1 Beta (IL1b)

CATALOG # AAA146620	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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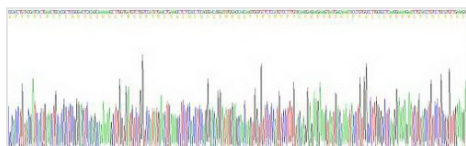
PRODUCT SYNONYMS

Interleukin 1 Beta (IL1b); Active Interleukin 1 Beta (IL1b); IL1-B; IL1-Beta; IL1F2; IL-1beta; Interleukin-1 Family Member 2; Catabolin; IL1b active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95%
Form/Format	Freeze-dried powder
Sequence Length	269
Applicable Applications for IL1b active protein	Activity Assay, Cell Culture
Fragment	Ala117~Ser269
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Organism Species	Human
Isoelectric Point	7.1
Usage	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Application Data

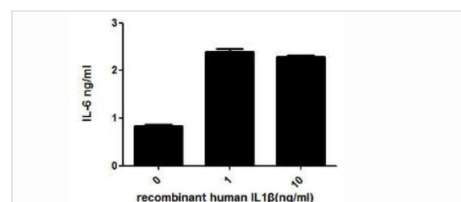


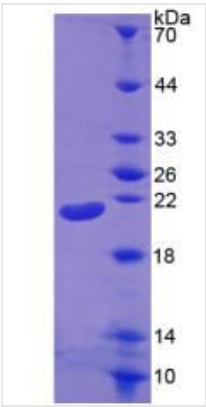
Figure 1. IL-6 levels in the cell supernatant of A549 cells up-regulated by IL1-β.

Application Data

Sample (cell supernatant of A549 cells)	O.D. value	Corrected	Concentration of IL-6 (ng/mL)
stimulated with IL-1 β (1ng/mL)	0.665	0.609	2.36
stimulated with IL-1 β (10ng/mL)	0.631	0.574	2.21
unstimulated	0.309	0.253	0.86

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SDS-PAGE

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Activity

IL-1beta (Interleukin-1 beta) is a proinflammatory and immunoregulatory cytokine involved in a variety of cellular activities. It is produced by activated macrophages as a proprotein, and then proteolytically processed to an active form. It has been reported that IL-1beta-induced IL-6 production is mediated by both PI3K and IRAK4 in A549 cells. To detect the bioactivity of IL-1beta, A549 cells were seeded into 24-well plate at a density of 1x10⁵cells/mL, and allowed to attach overnight before treated with or without certain concentrations (1ng/mL, 10ng/mL) of IL1-beta for 4h and IL-6 levels in the cell supernatant were determined by ELISA.IL-6 levels in the cell supernatant of A549 cells increased significantly after stimulated with IL1-beta, the data was shown in Table 1 and Figure 1.

ADDITIONAL INFORMATION

Product Categories/Family for IL1b active protein	Active Protein
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NCBI AND UNIPROT INFORMATION

NCBI GI #	10835145
NCBI GeneID	3553
NCBI Accession #	NP_000567.1
NCBI GenBank Nucleotide #	NM_000576.2
UniProt Accession #	P01584; Q53X59; Q53XX2; Q7M4S7; Q7RU01; Q96HE5; Q9UCT6
Molecular Weight	21.1kDa; 21kDa
NCBI Official Full Name	interleukin-1 beta proprotein
NCBI Official Synonym Full Names	interleukin 1 beta
NCBI Official Symbol	IL1B
NCBI Official Synonym Symbols	IL-1; IL1F2; IL1-BETA
NCBI Protein Information	interleukin-1 beta
UniProt Protein Name	Interleukin-1 beta
UniProt Gene Name	IL1B
UniProt Synonym Gene Names	IL1F2; IL-1 beta

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/interleukin-1-beta-il1b/146620>