

Interleukin 1 Beta Active Protein | IL1b active protein

Active Interleukin 1 Beta (IL1b)

CATALOG #
AAA150093

APPLICATIONS
Activity Assay, Cell Culture

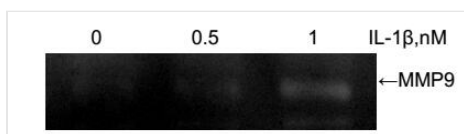
PRODUCT SYNONYMS

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

PRODUCT SPECIFICATIONS

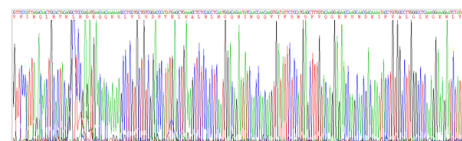
Purity/Purification	>97%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Val118-Ser269
Sequence Length	269
Applicable Applications for IL1b active protein	Activity Assay, Cell Culture
Species	Mouse
Tag	N-terminal His Tag
Isoelectric Point	8.4
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: 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



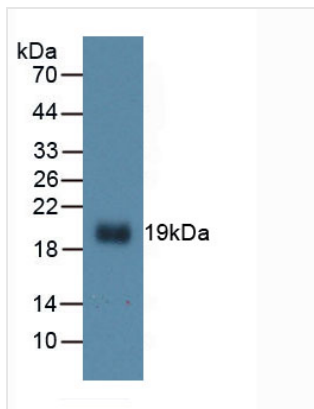
Application Data

IL-1 (Interleukin-1 beta) is a proinflammatory and immunoregulatory cytokine involved in a variety of cellular activities. It has been elucidated that IL-1 stimulation of cells activates MMP-9 (matrix metalloproteinases-9) secretion by the activation of the dual signalling pathways. Thus, a stimulation assay of IL-1 was conducted using 3T3 cell line, and the MMP-9 activity was detected through gel zymography. Briefly, 1×10⁶ 3T3 cells were cultured overnight in 5%DMEM, washed with serum-free medium and then stimulated with different concentrations of IL-1 for 20h, and cell lysates were collected to measure MMP-9 activity. Cell lysates samples were denatured by SDS loading buffer, electrophoresed through sodium dodecyl sulphate-polyacrylamide gel (SDS-PAGE; 10% gels) containing gelatin (1mg/mL) with nonreducing conditions. After renaturation, incubation and coomassiebrilliant blue (CBB)-stained, MMPs hydrolyzed gelatin nearby, indicated by the white binds on the gel. Result increased MMP-9 activity in 3T3 cells due to the stimulation of IL-1 was shown in Figure 1. Figure. Activation of MMP-9 by IL-1.

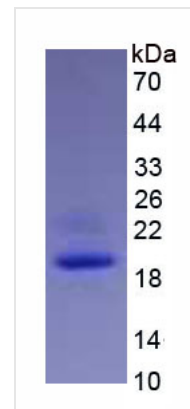


Gene Sequencing

Figure. Gene Sequencing (Extract)



WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for IL1b
active protein

Cytokine; Tumor immunity; Infection immunity

NCBI AND UNIPROT INFORMATION

NCBI GI #	6680415
NCBI GeneID	16176
NCBI Accession #	NP_032387.1
NCBI GenBank Nucleotide #	NP_032387.1
UniProt Accession #	P10749
Molecular Weight	Predicted Molecular Mass: 19.0kDa Accurate Molecular Mass: 19kDa
NCBI Official Full Name	interleukin-1 beta
NCBI Official Synonym Full Names	interleukin 1 beta
NCBI Official Symbol	Il1b
NCBI Official Synonym Symbols	Il-1b; IL-1beta
NCBI Protein Information	interleukin-1 beta
UniProt Protein Name	Interleukin-1 beta
UniProt Gene Name	Il1b
UniProt Synonym Gene Names	IL-1 beta
UniProt Entry Name	IL1B_MOUSE

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.

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Online datasheet: <https://stage.aaabiotech.com/il1b-active-protein/interleukin-1-beta/150093>