

# Recombinant canine IL-1 alpha/IL1A protein

Catalog Number: ATGP3976

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

109-265aa

### UniProt No.

O46612

### NCBI Accession No.

NP\_001003157

### Alternative Names

IL-1 alpha, IL-1a, Interleukin 1 alpha, Interleukin-1 alpha precursor

## PRODUCT SPECIFICATION

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### Molecular Weight

19.3kDa (166aa)

### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using D10.G4.1 mouse helper T cell. The ED50 range  $\leq$  2 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

IL-1 alpha /IL-1F1, also known as hematopoietin 1 is a cytokine of the interleukin 1 family. IL-1 $\alpha$  is a unique

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member in the cytokine family in the sense that the structure of its initially synthesized precursor does not contain a signal peptide fragment. In general, Interleukin 1 is responsible for the production of inflammation, as well as the promotion of fever and sepsis. IL-1 alpha inhibitors are being developed to interrupt those processes and treat diseases. IL-1 alpha is 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. Although IL-1 production is generally considered to be a consequence of inflammation, recent evidence suggests that IL-1 is also temporarily upregulated during bone formation and the menstrual cycle and can be induced in response to nervous system stimulation. Recombinant canine IL-1 alpha /IL-1F1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

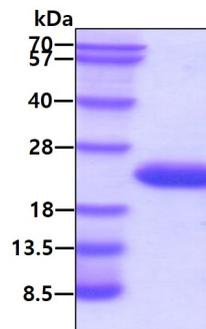
<ADP>SVAYNFH NNEKYNIRI IKSQFILNDN LNQSIVRQTG GNYLMTAALQ NLDDAVKFDM GAYTSEDSKL PVTLRISKTR LFSVAQNEDE PVLLKEMPET PKTIRDETNL LFFWERHGSK HYFKSVAQPK LFIATQERKL VHMARGQPSI TDFRLLLETQP <HHHHHH>

## General References

Watanabe N., et al, (1994) Cytokine. 6:597-601.  
Nicklin MJ., et al, (1994) Genomics. 19:382-384.  
March CJ, Mosley B., et al, (1985). Nature. 315 : 641-647.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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