

# CHAMOT

**重组人白细胞介素1 beta /Recombinant IL-1 beta,  
Human, Animal-Free**

**CM002-5HP**

**CM002-20HP**

**CM002-100HP**

**CM002-500HP**

**CM002-1000HP**



**CHAMOT**

乔默®生物

*Specialize In Cytokines*

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## 重组人白细胞介素1 beta /Recombinant IL-1 beta, Human, Animal-Free

产品编号	CM002-5HP	CM002-20HP	CM002-100HP	CM002-500HP	CM002-1000HP
规格	5 µg	20 µg	100 µg	500 µg	1 mg

### 产品简介

#### 背景描述

Interleukin-1 beta (IL-1 $\beta$ ) is a major cytokine expressed in macrophage, NK cells, monocytes, and neutrophils. It also plays fundamental role in inflammatory response, including monocyte activation, which is essential for the host defense and pathogen and pathogen resistance. Pro-IL-1 $\beta$  is cleaved by cytosolic caspase 1 to form mature IL-1 $\beta$ .

#### 别称

interleukin 1 beta, Catabolin, Lymphocyte-Activating Factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF), IL1, IL1B

#### 蛋白编码

P01584

#### 分子量

The protein has a calculated MW of 18.5 kDa. The protein migrates as 17 kDa under reducing condition (SDS-PAGE analysis).

#### 表达系统

Escherichia coli

#### 纯度

>98% as determined by SDS-PAGE.

#### 生物活性

Measure by its ability to induce IL-8 secretion in HT29 cells. The ED<sub>50</sub> for this effect is <2.0 ng/mL. The specific activity of recombinant human IL-1 beta is approximately >5 x 10<sup>7</sup> IU/mg.

#### 内毒素检测

<0.1 EU per 1 µg of the protein by the LAL method.

#### 蛋白序列

MASAPVRSLNCTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFMSFVQGEESNDKIPV  
ALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNKLFEESAQFPNWWYIS  
TSQAENMPVFLGGTKGGQDITDFTMQFVSS with polyhistidine tag at the C-terminus.

#### 产品形式

The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 8.0. If you have any concerns or special requirements, please confirm with us.

#### 产品应用

Cell Culture

## 产品使用

1. Before opening, centrifuge at 3000 rpm for 5 mins.

### 2. Initial Reconstitution

- Reconstitute the Lyophilized Protein in sterile H<sub>2</sub>O to a concentration of 100-200 µg/mL.
- Then, incubate it at room temperature for at least 20 mins to ensure sufficient dissolution.

Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

- Store at 2°C to 8°C for up to 1 week.

### 3. Extended Storage

- After the initial reconstitution, further dilute the reconstituted protein in a buffer containing a carrier protein or stabilizer (e.g., 0.1% BSA, 10% FBS, 5% HSA, or 5% trehalose solution). The final concentration is not less than 10 µg/ml.

- Prepare aliquots (≥20 µl).
- Store at -20°C or -80°C for 3 to 6 months.

Avoid repeated freeze-thaw cycles.

## 产品储存/运输

**Lyophilized Protein:** Store at -20°C for 1 year.

### 储存

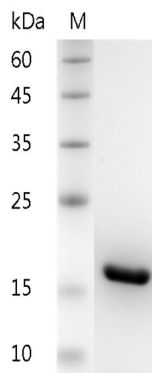
**Initial Reconstitution:** Store at 2°C to 8°C for up to 1 week.

**Extended Storage:** Store at -20°C or -80°C for 3 to 6 months with a carrier protein or stabilizer.

### 运输

Blue Ice

## 实验数据展示



## 文献引用

- Comparison of Curative Effect of Human Umbilical Cord-Derived Mesenchymal Stem Cells and Their Small Extracellular Vesicles in Treating Osteoarthritis. *Int J Nanomedicine*. 2021; 16: 8185–8202. (IF 6.400) (Human IL-1 $\beta$ )
- Interferon- $\alpha$  regulates abnormally increased expression of RSAD2 in Th17 and Tfh cells in systemic lupus erythematosus patients. *Eur J Immunol*. 2023 May 13;e2350420. (IF 6.688) (Human IL-1 $\beta$ , IL-6, IL-12, IL-21, IL-23, TGF- $\beta$ )
- AIM2 deficiency in CD4<sup>+</sup> T cells promotes psoriasis-like inflammation by regulating Th17-Treg axis via AIM2-IKZF2 pathway. *J Autoimmun*. 2025 Jan;150:103351. (IF 7.0)(Human IL-6, TGF- $\beta$ , IL-12, IL-21, IL-2, IL-4, IL-1 $\beta$ , IL-23; Mouse IL-6, IL-21)
- Integrative Bulk and Single-Cell Transcriptomic Profiling Reveals Oxidative Stress-Related Genes and Potential Therapeutic Targets in Osteoarthritis. *Mediators of Inflammation*, Volume 2025, Article ID 1240226, 38 pages. (IF 26.8)(Human IL-1 $\beta$ )

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