

## 22 References 画像数 2

## 製品の概要

|         |   |
|---------|---|
| 製品名     | Rat IL-1 beta ELISA Kit                 |
| 検出方法    | Colorimetric                            |
| サンプルの種類 | Cell culture supernatant, Serum, Plasma |
| アッセイタイプ | Sandwich (quantitative)                 |
| 検出感度    | < 80 pg/ml                              |
| 検出範囲    | 68.59 pg/ml - 50000 pg/ml               |
| 添加回収試験  | 99 %                                    |

### 特定サンプルでの回収試験

| サンプルの種類                  | 平均 %  | 測定範囲       |
|--------------------------|-------|------------|
| Cell culture supernatant | 92.89 | 81% - 109% |
| Serum                    | 107.2 | 95% - 115% |
| Plasma                   | 97.55 | 89% - 108% |

|       |   |
|-------|---|
| ステップ  | Multiple steps standard assay   |
| 種交差性  | 交差種: Rat  |
| 製品の概要 | Abcam's IL-1 beta Rat ELISA (Enzyme-Linked Immunosorbent Assay) Kit is an <i>in vitro</i> enzyme-linked immunosorbent assay for the quantitative measurement of rat IL-1 beta in serum, plasma and cell culture supernatants. |

This assay employs an antibody specific for IL-1 beta coated on a 96-well plate. Standards and samples are pipetted into the wells and IL- 1 beta present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-rat IL-1 beta antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and colour develops in proportion to the amount of IL-1 beta bound. The Stop Solution changes the colour from blue to yellow, and the intensity of the colour is measured at 450 nm.

試験プラットフォーム Microplate

## 製品の特性

### 保存方法

Store at -20°C. Please refer to protocols.

| 内容   | 1 x 96 tests |
|--|--------------|
| 200X HRP-Streptavidin Concentrate                | 1 x 200µl    |
| 20X Wash Buffer                                  | 1 x 25ml     |
| 5X Assay Diluent B                               | 1 x 15ml     |
| Assay Diluent A                                  | 1 x 30ml     |
| Biotinylated anti-rat IL-1 beta                  | 2 vials      |
| IL-1 beta Microplate (12 x 8 wells)              | 1 unit       |
| Recombinant rat IL-1 beta Standard (lyophilized) | 2 vials      |
| Stop Solution                                    | 1 x 8ml      |
| TMB One-Step Substrate Reagent                   | 1 x 12ml     |

### 機能

Potent proinflammatory cytokine. Initially discovered as the major endogenous pyrogen, induces prostaglandin synthesis, neutrophil influx and activation, T-cell activation and cytokine production, B-cell activation and antibody production, and fibroblast proliferation and collagen production. Promotes Th17 differentiation of T-cells.

### 組織特異性

Expressed in activated monocytes/macrophages (at protein level).

### 配列類似性

Belongs to the IL-1 family.

### 翻訳後修飾

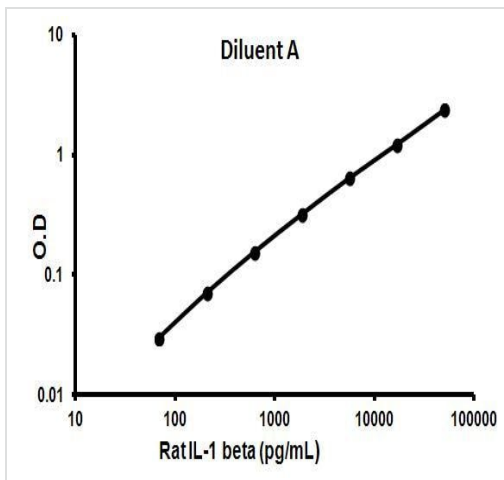
Activation of the IL1B precursor involves a CASP1-catalyzed proteolytic cleavage. Processing and secretion are temporarily associated.

### 細胞内局在

Cytoplasm, cytosol. Lysosome. Secreted, exosome. Cytoplasmic vesicle, autophagosome. Secreted. The precursor is cytosolic. In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRC4 inflammasome, cleaved and secreted. IL1B lacks any known signal sequence and the pathway(s) of its secretion is(are) not yet fully understood (PubMed:24201029). On the basis of experimental results, several unconventional secretion mechanisms have been proposed. 1. Secretion via secretory lysosomes: a fraction of CASP1 and IL1B precursor may be incorporated, by a yet undefined mechanism, into secretory lysosomes that undergo Ca(2+)-dependent exocytosis with release of mature IL1B (PubMed:15192144). 2. Secretory autophagy: IL1B-containing autophagosomes may fuse with endosomes or multivesicular bodies (MVBs) and then merge with the plasma membrane releasing soluble IL1B or IL1B-containing exosomes (PubMed:24201029). However, autophagy impacts IL1B production at several levels and its role in secretion is still controversial. 3. Secretion via exosomes: ATP-activation of P2RX7 leads to the formation of MVBs containing exosomes with entrapped IL1B, CASP1 and other inflammasome components. These MVBs undergo exocytosis with the release of exosomes. The release of soluble IL1B occurs after the lysis of exosome membranes (By similarity). 4. Secretion by microvesicle shedding: activation of the ATP receptor P2RX7 may induce an immediate shedding of membrane-derived microvesicles containing IL1B and possibly inflammasome components. The cytokine is then released in the extracellular compartment after microvesicle lysis (PubMed:11728343). 5. Release by translocation through permeabilized plasma membrane. This may occur in cells

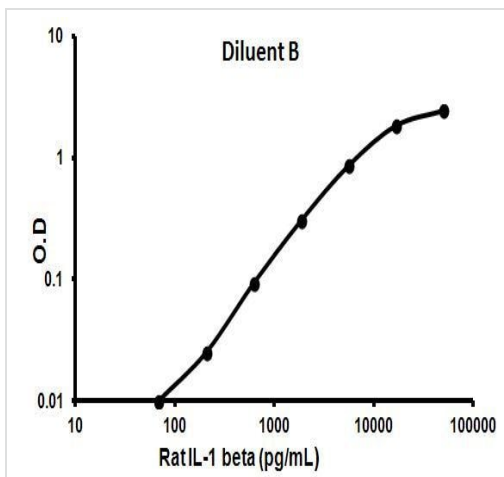
undergoing pyroptosis due to sustained activation of the inflammasome (By similarity). These mechanisms may not be not mutually exclusive.

## 画像



Representative standard curve using ab100767

Typical data



Representative standard curve using ab100767

typical data

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