# abcam

### Product datasheet

## Anti-IL-1 beta antibody ab9722

★★★★★ 21 Abreviews 764 References 画像数 3

#### 製品の概要

製品名 Anti-IL-1 beta antibody

製品の詳細 Rabbit polyclonal to IL-1 beta

由来種 Rabbit

特異性 Anti-IL-1 beta antibody is expected to react with both the mature and pro form of IL-1 beta.

アプリケーション 適用あり: IHC-P, Sandwich ELISA, WB 種交差性 交差種: Human, Recombinant fragment

免疫原 Full length protein aa 118-269. Full length mature protein minus the propeptide from aa 1-117

(Peptide available as ab9723).

Database link: P10749

ポジティブ・コントロール HC-P: Human adrenal tissue; Recombinant mouse IL-1 beta protein (ab9723) can be used as a

positive control in WB

特記事項 This product is no longer batch tested in IHC, for an IHC validated antibody please see ab156791

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

#### 製品の特性

製品の状態 Lyophilized:Reconstitute with sterile water to 0.1-1.0mg/ml, aliquot and store at -20°C.

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term. Avoid freeze /

thaw cycle.

パッファー No preservative, sterile filtered

精製度 Immunogen affinity purified

ポリモノ ポリクローナル アイソタイプ unknown 軽鎖の種類 unknown

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**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab9722の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P	★ ★ ★ ★ ☆ (5)	Use a concentration of 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Sandwich ELISA		Use a concentration of $0.5$ - $2~\mu g/ml$ . To detect mlL-1b by direct ELISA (using $100\mu l/well$ antibody solution) a concentration of at least $0.5\mu g/ml$ of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of $0.2$ - $0.4$ ng/well of recombinant mlL-1b.
WB	<b>★★★★</b> (6)	Use a concentration of 0.1 - 0.2 μg/ml. Predicted molecular weight: 30 kDa.  Used in conjunction with compatible secondary reagents the detection limit for recombinant mlL-1β is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.

#### ターゲット情報

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

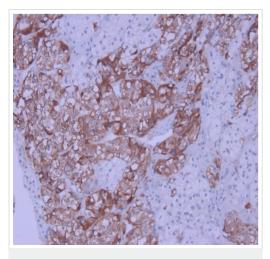
Activation of the IL1B precursor involves a CASP1-catalyzed proteolytic cleavage. Processing and secretion are temporarily associated.

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

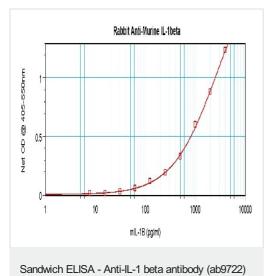
lysis of exosome membranes (By similarity). 4. Secretion by microvesicle shedding: activation of the ATP receptor P2RX7 may induce an immediate shedding of membrane-derived microvesicles containing IL1B and possibly inflammasome components. The cytokine is then released in the extracellular compartment 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

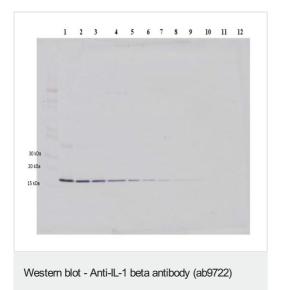


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-IL-1 beta antibody (ab9722)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human normal adrenal tissue labelling IL-1 beta with ab9722 at 2  $\mu$ g/mL (45 minute incubation at room temperature). Heat mediated antigen retrieval was performed using a buffer at pH 6. An HRP-labeled polymer detection system was used with a DAB chromogen.



Sandwich ELISA detecting IL-1 beta using ab9722 at a concentration of 2  $\mu g/\text{ml}.$ 



To detect mouse IL-1 beta by Western Blot analysis, ab9722 can be used at a concentration of 0.1-0.2  $\mu$ g/ml. When used in conjunction with compatible development reagents, the detection limit for recombinant mouse IL-1 beta is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.

**Lanes 1-11:** 250, 125, 62.5, 31.25, 15.625, 7.8, 3.9, 1.95, 0.975, 0.4875 and 0.24 ng recombinant mouse IL-1 beta, respectively. Non-reducing conditions.

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