

Product datasheet

Anti-IL-1 beta antibody [11E5] ab8320

★★★★☆ 1 Abreviews 12 References 2 Images

Overview

Product name	Anti-IL-1 beta antibody [11E5]
Description	Mouse monoclonal [11E5] to IL-1 beta
Host species	Mouse
Specificity	Does not inhibit the biological activity of Interleukin-1.
Tested applications	Suitable for: ICC/IF, ELISA, IHC-P, IHC-Fr
Species reactivity	Reacts with: Human
Immunogen	Recombinant beta human Interleukin-1

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	PBS with 0.1% sodium azide, pH 7.4
Purity	Ascites
Purification notes	Purified from ascites.
Clonality	Monoclonal
Clone number	11E5
Myeloma	x63-Ag8.653
Isotype	IgG2b

Applications

Our [Abpromise guarantee](#) covers the use of **ab8320** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

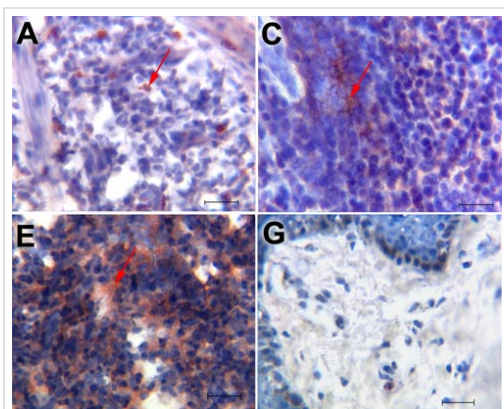
Application	Abreviews	Notes
ICC/IF	★★★★☆	Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.

Target

Function	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.
Tissue specificity	Expressed in activated monocytes/macrophages (at protein level).
Sequence similarities	Belongs to the IL-1 family.
Post-translational modifications	Activation of the IL1B precursor involves a CASP1-catalyzed proteolytic cleavage. Processing and secretion are temporarily associated.
Cellular localization	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.

Images

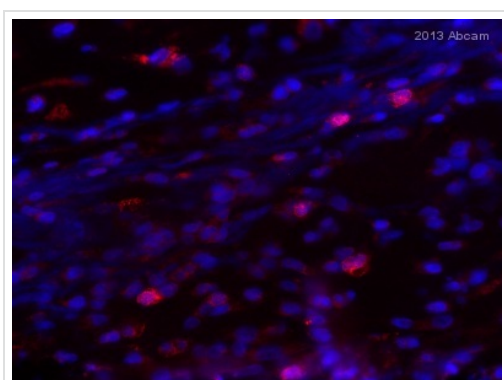


Immunohistochemistry (Frozen sections) - Anti-IL-1 beta antibody [11E5] (ab8320)

Image from Fernández-Figueroa EA et al., PLoS Negl Trop Dis. 2012;6(5):e1533. Epub 2012 May 22. Fig 3.; doi:10.1371/journal.pntd.0001533; May 22, 2012, PLoS Negl Trop Dis 6(5): e1533.

Immunohistochemical analysis of frozen Human skin tissue taken from patients with localized cutaneous leishmaniasis (A, C), diffuse cutaneous leishmaniasis (E). Normal tissue (G) was used as a negative control.

IL-1 beta was stained using ab8320 at 1/100 dilution for 1 hour at room temperature. ab94705 Mouse and Rabbit Specific HRP/AEC Detection IHC Kit was used to detect staining. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-IL-1 beta antibody [11E5] (ab8320)

This image is courtesy of an anonymous Abreview

ab8320 staining IL-1 beta in lung inflammatory cells from Rhesus monkey by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with Tween 20 and blocked with 10% serum for 2 hours at 21°C. Samples were incubated with primary antibody (1/25 in PBS + 10% serum + 1% Tween 20) for 18 hour at 4°C. An diluted Alexa Fluor®594-conjugated + 1.4nm Goat anti-mouse IgG polyclonal was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors