

# IL-1 beta (Pro-form) Monoclonal Antibody (NJTEN3), FITC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), FITC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NJTEN3
Conjugate	FITC
Excitation/Emission Max	498/517 nm
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10718251

Applications	Tested Dilution	Publications
Western Blot (WB)	-	2 Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	18 Publications
ELISA (ELISA)	-	2 Publications

## Product Specific Information

Description: This NJTEN3 monoclonal antibody reacts with the pro-form of mouse IL-1 beta, which is a proinflammatory cytokine expressed by monocytes, macrophages, and dendritic cells. It is synthesized in response to inflammatory stimuli as a 31 kDa inactive pro-form that accumulates in the cytosol. Cleavage of pro-IL-1 beta into the active 17 kDa protein requires the activation of inflammasomes, which are multi-protein complexes that respond to pathogens, stress conditions, and other danger signals. Inflammasome activation triggers the processing of the caspase-1 precursor into its active form, which in turn cleaves pro-IL-1 beta. IL-1 beta lacks a signal sequence peptide for classical ER/Golgi pathway and is instead secreted alongside caspase-1 via an alternate and incompletely understood mechanism. IL-1 beta signals via the IL-1RI, which is shared with IL-1 alpha. These cytokines play important roles in innate host defense by triggering the production of other proinflammatory cytokines in target cells and initiating acute-phase responses. Their activity can be moderated by IL-1 Receptor Antagonist (IL-1RA), a protein produced by many cell types that blocks receptor binding through competitive inhibition. Elevated levels of IL-1 beta have been associated with many chronic inflammatory conditions, giving IL-1RA or IL-1 beta neutralizing antibodies potential therapeutic value. The NJTEN3 antibody recognizes only the pro-form of mouse IL-1 beta and does not see the active (cleaved) form.

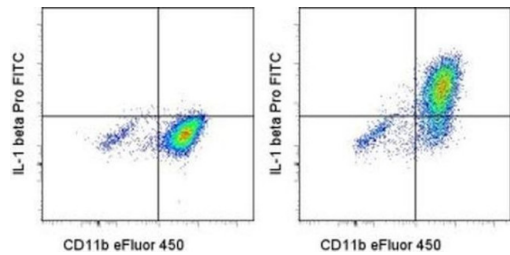
Applications Reported: This NJTEN3 antibody has been reported for use in intracellular staining and flow cytometric analysis.

Applications Tested: This NJTEN3 antibody has been tested by intracellular staining and flow cytometric analysis of mouse thioglycolate-elicited peritoneal macrophages using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and protocol. Please refer to Best Protocols: Protocol A: Two step protocol for (cytoplasmic) intracellular proteins. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488 nm; Emission: 520 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For IL-1 beta (Pro-form) Monoclonal Antibody (NJTEN3), FITC, eBioscience™**



**IL-1 beta (Pro-form) Antibody (11-7114-82) in Flow**  
Intracellular staining of BALB/c thioglycolate-elicited peritoneal macrophages unstimulated (left) or stimulated 6 hours with LPS (right) in the presence of Protein Transport Inhibitor Cocktail (Product # 00-4980-03) with Anti-Mouse CD11b eFluor® 450 (Product # 48-0112-82) and 0.125 µg of Anti-Mouse IL-1 beta Pro-form FITC. Total viable cells were used for analysis.

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## Western Blot (2)

<p>International journal of molecular sciences</p> <p><b>N-acetylcysteine Reduces Inflammasome Activation Induced by SARS-CoV-2 Proteins In Vitro.</b></p> <p>"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 11-7114-82) in Western Blot"</p> <p>Authors: Milara J,Martínez-Expósito F,Montero P,Roger I,Bayarri MA,Ribera P,Oishi-Konari MN,Alba-García JR,Zapater E,Cortijo J</p>	<p>Year 2022</p>
<p>Cancer discovery</p> <p><b>Cell-selective inhibition of NF-B signaling improves therapeutic index in a melanoma chemotherapy model.</b></p> <p>"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 11-7114-82) in ELISA"</p> <p>Authors: Enzler T,Sano Y,Choo MK,Cottam HB,Karin M,Tsao H,Park JM</p>	<p>Year 2011</p>

## Immunocytochemistry (1)

<p>Journal of neuroinflammation</p> <p><b>Smek1 deficiency exacerbates experimental autoimmune encephalomyelitis by activating proinflammatory microglia and suppressing the IDO1-AhR pathway.</b></p> <p>"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 11-7114-82) in Flow Cytometry"</p> <p>Authors: Duan RN,Yang CL,Du T,Liu A,Wang AR,Sun WJ,Li X,Li JX,Yan CZ,Liu QJ</p>	<p>Year 2021</p>
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## Flow Cytometry (18)

<p>Cellular and molecular gastroenterology and hepatology</p> <p><b>Interleukin-1 Suppresses Gastrin via Primary Cilia and Induces Antral Hyperplasia.</b></p> <p>"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 11-7114-82) in Flow Cytometry"</p> <p>Authors: Ding L,Sontz EA,Saqui-Salces M,Merchant JL</p>	<p>Year 2022</p>
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## More applications with references on thermofisher.com

## ELISA (2)

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