

# IL-1 beta (Pro-form) Monoclonal Antibody (NJTEN3), PE, 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), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NJTEN3
Conjugate	PE
Excitation/Emission Max	565/576 nm
Form	Liquid
Concentration	0.2 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_10732630

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.06 µg/test	26 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.

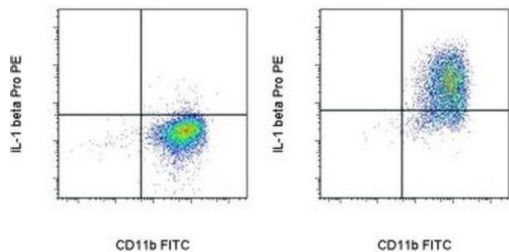
Applications Tested: This NJTEN3 antibody has been tested by intracellular staining and flow cytometric analysis of mouse

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 0.06 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: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



**IL-1 beta (Pro-form) Antibody (12-7114-82) in Flow**  
In vitro-cultured mouse monocytes unstimulated (left) or stimulated with LPS (right), in the presence of Protein Transport Inhibitor Cocktail (Product # 00-4980-03), stained with Anti-Mouse CD11b FITC (Product # 11-0112-41) and 0.03 µg of Anti-Mouse IL-1 beta Pro-form PE. Total viable cells were used for analysis.

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Immunocytochemistry (1)

Journal of neuroinflammation	Year 2021
<b>Smek1 deficiency exacerbates experimental autoimmune encephalomyelitis by activating proinflammatory microglia and suppressing the IDO1-AhR pathway.</b>	Species Mouse
"12-7114-82 was used in Flow Cytometry to provide an instructive basis for the roles of Smek1 in EAE and broaden the understanding of the genetic factors involved in the pathogenesis of autoimmune demyelination."	
Authors: Duan RN,Yang CL,Du T,Liu A,Wang AR,Sun WJ,Li X,Li JX,Yan CZ,Liu QJ	

Flow Cytometry (26)

Aging and disease	Year 2023
<b>Microbially-Induced Exosomes from Dendritic Cells Promote Paracrine Immune Senescence: Novel Mechanism of Bone Degenerative Disease in Mice.</b>	Species Mouse
"12-7114-82 was used in Flow cytometry/Cell sorting to conclude that immune senescence, compounded by advanced age, and accelerated by oral dysbiosis and its induced SASP exosomes, plays a pivotal role in the pathophysiology of experimental periodontitis."	
Authors: Elsayed R,Elashiry M,Liu Y,Morandini AC,El-Awady A,Elashiry MM,Hamrick M,Cutler CW	

Cellular and molecular gastroenterology and hepatology	Year 2022
<b>Interleukin-1 Suppresses Gastrin via Primary Cilia and Induces Antral Hyperplasia.</b>	
"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 12-7114-82) in Flow Cytometry"	
Authors: Ding L,Sontz EA,Saqui-Salces M,Merchant JL	

[View more Flow references on thermofisher.cn](#)

More applications with references on thermofisher.cn

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