

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

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NJTEN3
Conjugate	APC
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10670739

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.06 µg/test	18 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 therapeutical 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.

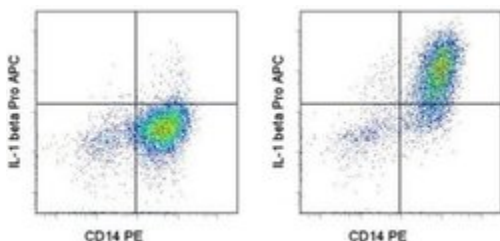
Applications Tested: This NJTEN3 antibody has been tested by intracellular staining and flow cytometric analysis of mouse thioglycolate-elicited peritoneal macrophages using the Intracellular Fixation & Permeabilization Buffer Set (cat. 88-8824) and

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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 633-647 nm; Emission: 660 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

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



IL-1 beta (Pro-form) Antibody (17-7114-80) in Flow

Intracellular staining of BALB/c thioglycolate-elicited peritoneal macrophages unstimulated (left) or stimulated 6 hours with LPS (right) with Anti-Mouse CD14 PE (Product # 12-0141-82) and 0.03 µg of Anti-Mouse IL-1 beta Pro-form APC (right). Total viable cells were used for analysis.

[View more figures on thermofisher.com](#)

18 References

Flow Cytometry (18)

Cellular and molecular gastroenterology and hepatology

Interleukin-1 Suppresses Gastrin via Primary Cilia and Induces Antral Hyperplasia.

"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 17-7114-80) in Flow Cytometry"

Authors: Ding L, Sontz EA, Saqui-Salces M, Merchant JL

Species
Not Applicable

Dilution
Not Cited

Year
2021

Cell reports

Heme Oxygenase-1 Induction by Blood-Feeding Arthropods Controls Skin Inflammation and Promotes Disease Tolerance.

"17-7114 was used in Flow cytometry/Cell sorting to demonstrate that HO-1 induction through erythrophagocytosis is a universal mechanism that regulates skin inflammation following blood feeding by arthropods, thus promoting early-stage disease tolerance to vector-borne pathogens."

Authors: DeSouza-Vieira T, Iniguez E, Serafim TD, de Castro W, Karmakar S, Disotuar MM, Cecilio P, Lacsina JR, Meneses C, Nagata BM, Cardoso S, Sonenshine DE, Moore IN, Borges VM, Dey R, Soares MP, Nakhasi HL, Oliveira F, Valenzuela JG, Kamhawi S

Species
Mouse

Dilution
Not Cited

Year
2020

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

More applications with references on thermofisher.com

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