

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

Product Details	
Size	100 µg
Species	Mouse
Published Species	Artificial Control, Human, Mouse
Expression System	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	NJTEN3
Conjugate	PE
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_10732630

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.06 µg/test	14 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.

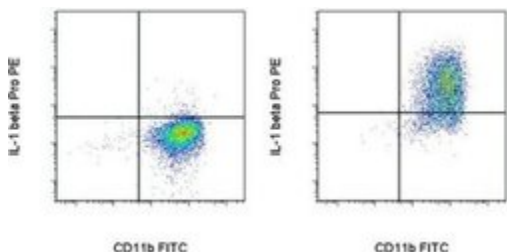
Applications Tested: This NJTEN3 antibody has been tested by intracellular staining and flow cytometric analysis of mouse thioglycolate-elicited peritoneal macrophages using the Intracellular Fixation and Permeabilization Buffer Set (cat. 88-8824) and

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: 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.

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

14 References

Flow Cytometry (14)

Frontiers in immunology

Notch Regulates Macrophage-Mediated Inflammation in Diabetic Wound Healing.

"Published figure using IL-1 beta (Pro-form) monoclonal antibody (Product # 12-7114-82) in Flow Cytometry"

Authors: Kimball AS, Joshi AD, Boniakowski AE, Schaller M, Chung J, Allen R, Bermick J, Carson WF, Henke PK, Maillard I, Kunkel SL, Gallagher KA

Species
Human

Dilution
Not Cited

Year
2019

JCI insight

1,25-Dihydroxyvitamin D suppresses M1 macrophages and promotes M2 differentiation at bone injury sites.

"12-7114 was used in Flow cytometry/Cell sorting to define the role of M1 macrophages at bone injury sites via the function of 1,25-Dihydroxyvitamin D in suppressing M1 but promoting M2 differentiation."

Authors: Wasnik S, Rundle CH, Baylink DJ, Yazdi MS, Carreon EE, Xu Y, Qin X, Lau KW, Tang X

Species
Mouse
Artificial Control

Dilution
Not Cited
Not Cited

Year
2018

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

More applications with references on thermofisher.com

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