

# PLZF Monoclonal Antibody (Mags.21F7), Alexa Fluor™ 488, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Alexa Fluor™ 488, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	Mags.21F7
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 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_2574445

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	11 Publications

## Product Specific Information

**Description:** This Mags.21F7 monoclonal antibody reacts with human and mouse promyelocytic leukemia zinc finger (PLZF), a member of the BTB-POZ family of transcription factors. Expression of this transcriptional repressor in immune cells differs between mice and humans. In mice, PLZF is highly expressed in immature CD1d-restricted NKT2 and NKT1 cells, and a subset of gamma delta (Vg1.1+Vd6.3+) T cells. Studies have also demonstrated expression of PLZF in non-invariant CD1d-restricted T cells, as well as non-CD1d-restricted innate T cells. In humans, PLZF is expressed in NK cells, gamma delta T cells, as well as CD4 and CD8+ T cells. PLZF is also expressed in MR1-specific mucosal-associated invariant T cells, as well as in MHC Class II-restricted T cells that develop via a thymocyte-thymocyte interaction in humans. PLZF exists as a homodimer or in complex with PLZP, and has been shown to be involved in the development of NKT cells, NK cell function, cellular quiescence, and growth suppression. Finally, PLZF has been shown to inhibit gene expression induced by retinoic acid receptor.

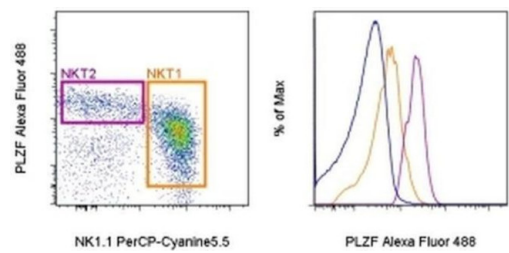
**Applications Reported:** This Mags.21F7 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

**Applications Tested:** This Mags.21F7 antibody has been tested by intracellular staining followed by flow cytometric analysis of mouse thymocytes. This can be used at less than or equal to 1 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: 519 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For PLZF Monoclonal Antibody (Mags.21F7), Alexa Fluor™ 488, eBioscience™



**PLZF Antibody (53-9320-82) in Flow**  
C57Bl/6 thymocytes were surface-stained with Anti-Mouse TCR beta, Anti-Mouse CD1d Tetramer, and Anti-Mouse NK1-1 PerCP-Cyanine5-5 (Product # 45-5941-82), followed by intracellular staining with Anti-Human/Mouse PLZF Alexa Fluor® 488 using the Foxp3 Staining Buffer Set and protocol (Product # 00-5523-00). Anti-Human/Mouse PLZF Alexa Fluor® 488 staining (right) was compared in T cells (CD1d Tetramer-NK1-1-TCR beta+; blue histogram), NKT1 cells (CD1d Tetramer+NK1-1+TCR beta+; orange histogram), and NKT2 cells (CD1d Tetramer+NK1-1-TCR beta+; purple histogram).

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11 References

Flow Cytometry (11)

<p>Cell reports</p> <p><b>NKT cells adopt a glutamine-addicted phenotype to regulate their homeostasis and function.</b></p> <p>"53-9320-82 was used in Flow cytometry/Cell sorting to highlight a distinct metabolic requirement of NKT cells compared with CD4 T cells, which may have therapeutic implications in the treatment of certain nutrient-restricted diseases."</p> <p>Authors: Kumar A,Yarosz EL,Andren A,Zhang L,Lyssiotis CA,Chang CH</p>	<p>Year 2022</p> <p>Species Mouse</p>
<p>Cells</p> <p><b>Loss of Ubiquitin Carboxy-Terminal Hydrolase L1 Impairs Long-Term Differentiation Competence and Metabolic Regulation in Murine Spermatogonial Stem Cells.</b></p> <p>"Published figure using PLZF monoclonal antibody (Product # 53-9320-82) in Flow Cytometry"</p> <p>Authors: Alpaugh WF,Voigt AL,Dardari R,Su L,Al Khatib I,Shin W,Goldsmith TM,Coyle KM,Tang LA,Shutt TE,Klein C, Biernaskie J,Dobrinski I</p>	<p>Year 2021</p>

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