

PE/Cyanine7 anti-mouse PLZF Antibody

Catalog# / Size	145805 / 25 µg 145806 / 100 µg
Clone	9E12
Regulatory Status	RUO
Other Names	Promyelocytic leukemia zinc finger, Zbtb16, Zinc finger and BTB domain-containing protein 16, Zfp145
Isotype	Armenian Hamster IgG
Description	PLZF (promyelocytic leukemia zinc finger), also known as Zbtb16, Zinc finger and BTB domain-containing protein 16, Zfp145, is a member of the BTB-POZ family of transcription factors. It was first identified in a patient with acute promyelocytic leukemia, where a reciprocal chromosomal translocation <i>t</i> (11;17)(q23;q21) resulted in a fusion with <i>RARA</i> gene encoding retinoic acid receptor alpha. Expression of this transcriptional repressor in immune cells differs between human and mouse. In humans, PLZF is expressed in CD34 ⁺ progenitor cells and in primitive multipotent hematopoietic cell lines, NK cells, γδ T cells, CD4 ⁺ and CD8 ⁺ T cells. It 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. PLZF is involved in NK cell function, cellular quiescence, and growth suppression. It also inhibits gene expression induced by retinoic acid receptor. In mice, PLZF is highly expressed in immature CD1d-restricted invariant NKT (iNKT) cells, a subset of γδ (Vg1.1 ⁺ Vd6.3 ⁺) T cells, and non-invariant CD1d-restricted T cells. PLZF exists as a homodimer or in complex with PLZP, and has been shown to be involved in the development of NKT cells. It is also reported to be expressed in embryonic tissues, giving rise to hematopoietic progenitors.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Combination of peptides covering the amino, carboxyl and hinge regions of the PLZF.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.06 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
RRID	AB_2566164 (BioLegend Cat. No. 145805) AB_2566165 (BioLegend Cat. No. 145806)

Antigen Details

Structure	BTB domain-containing
Distribution	iNKT cells, $\gamma\delta$ (Vg1.1 ⁺ Vd6.3 ⁺) T cells, non-invariant CD1d-restricted T cells
Function	Involved in NKT cell development
Cell Type	NKT cells, T cells, Mesenchymal Stem Cells
Biology Area	Cell Biology, Immunology, Signal Transduction, Stem Cells, Transcription Factors
Antigen References	<ol style="list-style-type: none">1. Constantinides MG, <i>et al.</i> 2011. <i>J. Immunol.</i> 187:309.2. Kovalovsky D, <i>et al.</i> 2008. <i>Nat. Immunol.</i> 9:1055.3. Chen Z, <i>et al.</i> 1993. <i>EMBO J.</i> 12:1161.4. Chen Z, <i>et al.</i> 1994. <i>Proc. Natl. Acad. Sci. USA</i> 91:1178.
Gene ID	235320

Related Protocols

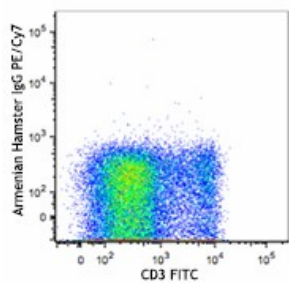
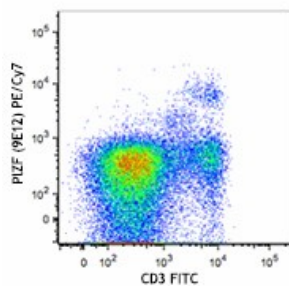
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-mouse PLZF, PE/Cyanine7 anti-mouse PLZF, PerCP/Cyanine5.5 anti-mouse PLZF

Product Data



BALB/c thymocytes were surface stained with CD3 FITC, then fixed and permeabilized using Fixation buffer and Permeabilization wash buffer, and then were stained with PLZF (clone 9E12) PE/Cyanine7 (top) or Armenian hamster IgG PE/Cyanine7 Isotype control (bottom).

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