

PE anti-Th-POK (ZFP-67) Antibody

Catalog# / Size	656403 / 25 tests 656404 / 100 tests
Clone	11H11A14
Regulatory Status	RUO
Other Names	T-helper-inducing POZ/Krueppel-like factor, Zinc finger and BTB domain-containing protein 7B (ZBTB7B), Krueppel-related zinc finger protein (cKrox), Zinc finger protein 67 homolog (ZFP-67)
Isotype	Mouse IgG1, κ
Description	Th-POK is a member of the BTB-POZ domain-containing zinc finger transcription factor family. It regulates gene expression during intrathymic T cell differentiation. A single autosomal recessive mutation of the Th-POK gene results in the absence of mature CD4 ⁺ helper T cells, called helper-deficient (HD) phenotype. In Th-POK deficient mice, MHC class II restricted thymocytes are redirected to the CD8 ⁺ T cell lineage. On the contrary, forced expression of Th-POK redirects MHC class I restricted thymocytes to the CD4 ⁺ T cell lineage. Inactivation of Th-POK in mature CD4 ⁺ T cells results in induction of the genes preferentially expressed in CD8 ⁺ T cells, such as CD8, granzyme B, and IFN- γ . These findings suggest that Th-POK is essential in promoting commitment of immature T cells to the CD4 lineage and maintaining the characteristics of mature CD4 ⁺ T helper cells.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial human Th-POK recombinant protein (197-345 a.a.)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 using our nuclear factor staining protocol. For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	NOTE: For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401) offers improved staining and is highly recommended. This clone displays a similar affinity to BioLegend clone W15147A by western blot. However, this clone does not recognize mouse TH-POK.
RRID	AB_2563008 (BioLegend Cat. No. 656403) AB_2563009 (BioLegend Cat. No. 656404)

Antigen Details

Structure	539 amino acids, predicted molecular weight of 58 kD; contains four C2H2-type zinc finger regions that are responsible for DNA binding; contains a BTB-POZ domain which is involved in homodimerization and association with other factors
Distribution	Nucleus
Function	Transcription factor that regulates CD4 lineage commitment of immature T-cell precursors; acts as a transcriptional repressor of collagen and fibronectin genes
Interaction	Acetyltransferase p300
Biology Area	Cell Biology, Immunology, Transcription Factors
Molecular Family	TCRs
Antigen References	<ol style="list-style-type: none"> 1. Kappes DJ. 2010. <i>Immunol. Rev.</i> 238:182. 2. Mariani F, et al. 2013. <i>PLoS One.</i> 8:e54488. 3. Zhang M, et al. 2010. <i>J. Immunol.</i> 185:3960. 4. Egawa T, et al. 2008. <i>Nat. Immunol.</i> 9:1131. 5. Wildt KF, et al. 2007. <i>J. Immunol.</i> 179:4405. 6. Setoguchi R, et al. 2009. <i>J. Immunol.</i> 183:4467.
Gene ID	51043

Related Protocols

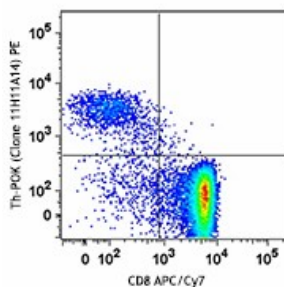
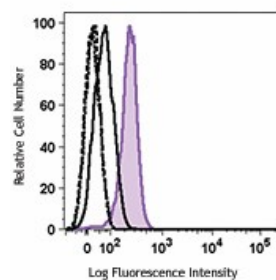
[True-Nuclear™ Transcription Factor Staining Protocol for 96-Well U Bottom Plate](#)

[True-Nuclear™ Transcription Factor Staining Protocol for 5mL Tubes](#)

Other Formats

Purified anti-Th-POK (ZFP-67), PE anti-Th-POK (ZFP-67), APC anti-Th-POK (ZFP-67), PE/Cyanine7 anti-Th-POK (ZFP-67)

Product Data



Human peripheral blood lymphocytes were surface stained with CD4 Brilliant Violet 421™ and CD8 Alexa Fluor® 647, and then were treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with Th-POK (clone 11H11A14) PE (filled histogram: CD4-positive cells, open histogram with solid line: CD8-positive cells) or mouse IgG1, κ PE isotype control (open histogram with dotted line: CD4-positive cells, open histogram with dashed line: CD8-positive cells).

C57BL/6 thymocytes were surface stained with CD8 APC/Cy7 and then treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with Th-POK (clone 11H11A14) PE.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587