

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

Catalog# / Size	688302 / 100 µg
Clone	W15147A
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), Thpok
Isotype	Rat IgG2a, 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	Mouse, Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Partial mouse Th-POK recombinant protein (197-350 a.a.) expressed in <i>E. coli</i> .
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested ICC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting . For Western blotting, the suggested use of this reagent is 1.0 µg/ml. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This clone recognizes mouse TH-POK. This clone displayed a similar affinity to BioLegend clone 11H11A14 by western blot. However, clone 11H11A14 does not recognize mouse TH-POK.
RRID	AB_2617025 (BioLegend Cat. No. 688302)

Antigen Details

Structure	539 amino acids with a predicted molecular weight of 58 kD and observed of approximately 70 kD; contains four C2H2-type zinc finger regions that are responsible for DNA binding; contains a BTB-POZ domain which is involved in homodimerization.
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	Interacts with the acetyltransferase p300.
Biology Area	Cell Biology, Immunology, Transcription Factors
Molecular Family	Nuclear Markers
Antigen References	<ol style="list-style-type: none"> 1. Kappes DJ. 2010. <i>Immunol. Rev.</i> 238:182. 2. Mariani F, <i>et al.</i> 2013. <i>PLoS One</i> 8:e54488. 3. Zhang M, <i>et al.</i> 2010. <i>J. Immunol.</i> 185:3960. 4. Egawa T, <i>et al.</i> 2008. <i>Nat. Immunol.</i> 9:1131. 5. Wildt KF, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:4405.
Gene ID	51043

Related Protocols

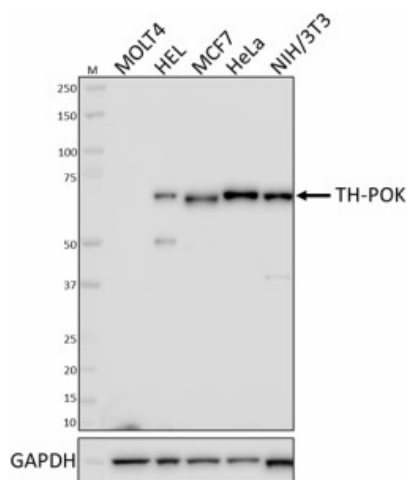
[Immunocytochemistry Staining Protocol](#)

[Western Blotting Protocol](#)

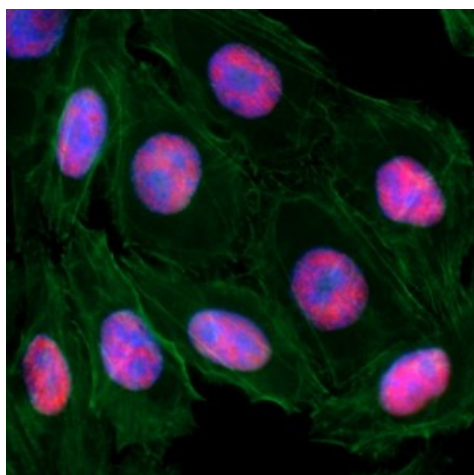
Other Formats

Purified anti-Th-POK (ZFP-67)

Product Data



Total cell lysates (15 µg total protein) from MOLT4 (negative control), HEL, MCF-7, HeLa and NIH/3T3 cells were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a nitrocellulose membrane, and probed with 1.0 µg/mL (1:500 dilution) of Purified anti-TH-POK Antibody, clone W15147A, overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP goat anti-rat IgG Antibody (Cat. No. 405405) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH Antibody (Cat. No. 607904) was used as a loading control at a 1:50,000 dilution (lower). Lane M: Molecular Weight marker. Predicted expression data was obtained from Human Protein Atlas.



HeLa cells were fixed with 2% paraformaldehyde (PFA) for 15 minutes, permeabilized with 0.5% Triton X-100 for five minutes, and blocked with 1% BSA for 60 minutes. Then the cells were intracellularly stained with 2.0 µg/ml purified anti-Th-POK antibody (clone W15147A) for one hour, followed by staining with Alexa Fluor® 594 conjugated anti-rat IgG antibody (red). Actin filaments were labeled with Alexa Fluor® 488 conjugated Phalloidin (green). Nuclei were counterstained with DAPI (blue). The image was captured with a 60X objective.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*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