

**PE anti-mouse/human Helios**

**Catalog # / Size:** 1286080 / 100 tests  
1286030 / 25 tests

**Clone:** 22F6

**Isotype:** Hamster IgG

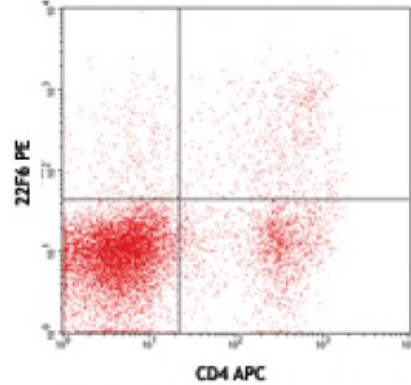
**Immunogen:** Helios peptide (aa 51-107)

**Reactivity:** Human, Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific

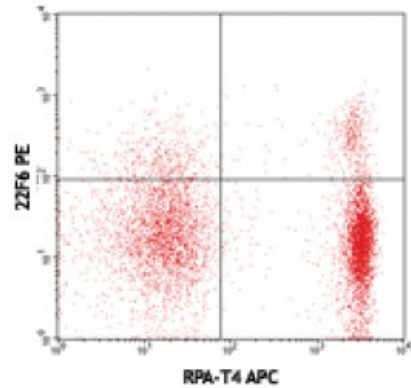


C57BL/6 splenocytes surface stained with CD4-APC (GK1.5), and then intracellularly stained with Helios-PE (clone 22F6).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular flow cytometry . It is recommended that the reagent be titrated for optimal performance for each application. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



Human peripheral blood lymphocytes surface stained with CD4-APC (RPA-T4), and then intracellularly stained with Helios-PE (clone 22F6).

**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 over the Foxp3 Fix/Perm Buffer Set (Cat. No. 421403) and the Nuclear Factor Fixation and Permeabilization Buffer Set (Cat. No. 422601).

- Application References:**
1. Thornton AM, *et al.* 2010. *J. Immunol.* 184:1. [PubMed](#)
  2. Verhagen J and Wraith D. 2010. *J. Immunol.* 185:7129.
  3. Stone B, *et al.* 2012. *Clin Immunol.* 145:153. [PubMed](#)
  4. Vaeth M, *et al.* 2012. *PNAS.* 109:16258. [PubMed](#)
  5. Angin M, *et al.* 2014. *PLoS One.* 9:86920. [PubMed](#)
  6. Bedke T, *et al.* 2014. *Immunol Cell Biol.* [PubMed](#)
  7. Liu Y, *et al.* 2014. *Am J Physiol Gastrointest Liver Physiol.* 307:177. [PubMed](#)
  8. Verhagen J and Wraith DC. 2014. *J. Immunol. Methods.* S0022. (FC) [PubMed](#)

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**Description:** Helios is a member of the Ikaros family of zinc finger transcription factors. It contains a C-terminal region composed of 2 zinc-finger domains that mediate dimerization between the family members. Helios was originally cloned from a mouse thymoma line. It is mainly expressed in peripheral T cells and thymocytes. It is found at high levels in a subpopulation of regulatory T cells. Helios plays an important role in T cell development and homeostasis. Overexpression of Helios profoundly alters  $\alpha\beta$  T cell differentiation and activation. It has been determined that silencing of Helios in B cells is critical for maintaining normal B cell function. Helios is also involved in tumor immunity.

**Antigen**  
**References:**

1. Kelly CM, *et al.* 1998. *Curr. Biol.* 8:508.
2. Dovat S, *et al.* 2005. *J. Immunol.* 175:3508.
3. Cortes M, *et al.* 1999. *Curr. Opin. Immunol.* 11:167.
4. Cai Q, *et al.* 2009