

**Alexa Fluor® 700 anti-mouse/human Helios**

**Catalog # / Size:** 1286210 / 100 tests  
1286205 / 25 tests

**Clone:** 22F6

**Isotype:** Hamster IgG

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

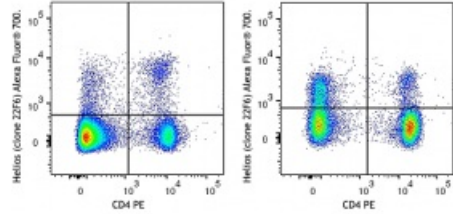
**Reactivity:** Human, Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.

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

**Workshop Number:** HCDM listed

**Concentration:** Lot-specific



C57BL/6 splenocytes (left) or human peripheral blood lymphocytes (right) were surface stained with CD4 PE and then treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with Helios (clone 22F6) Alexa Fluor® 700.

**Applications:**

**Applications:** Intracellular Staining for Flow Cytometry

**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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** **NOTE:** For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 2722005) offers improved staining and is highly recommended over the Foxp3 Fix/Perm Buffer Set and the True-Nuclear™ 10X Perm Buffer.

- 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](#)

**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. *J. Immunol.* 183:2303.
5. Zhang Z, *et al.* 2007. *Blood* 109:2190.
6. Hahm K, *et al.* 1998. *Genes Dev.* 12:782.