Product Data Sheet

Pacific Blue™ anti-mouse/human Helios

Catalog # / Size: 1286050 / 25 tests

1286100 / 100 tests

Clone:

Isotype: Hamster IgG

Helios peptide (aa 51-107) Immunogen:

Reactivity: Human, Mouse

Preparation: The antibody was purified by affinity

chromatography, and conjugated with Pacific Blue[™] under optimal conditions. The solution is free of unconjugated

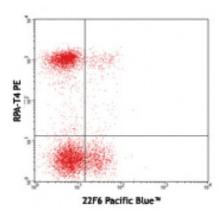
Pacific Blue™.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

0.2% (w/v) BSA (origin USA).

Concentration: Lot-specific



Human peripheral blood lymphocytes surface stained with CD4-PE (RPA-T4), and then were intracellulary stained with Helios-Pacific Blue [™] 647 (clone 22F6).

Applications:

Applications: Flow Cytometry

Recommended

Usage:

Each lot of this antibody is quality control tested by intracellular flow

cytometry.

For flow cytometric staining, the suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the

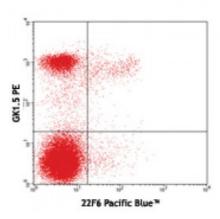
fluorochrome.

Application Notes:

NOTE: For flow cytometric staining with this clone, True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 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).



C57BL/6 splenocytes surface stained with CD4-PE (GK1.5), and then were intracellularly stained with Helios-Pacific Blue[™] (clone 22F6).

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