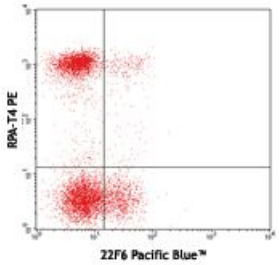
SONY

Product Data Sheet

Pacific Blue™ anti-mouse/human Helios

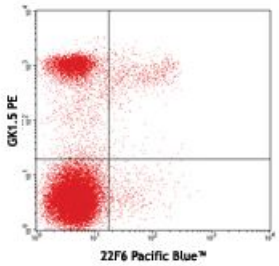
Catalog # / Size:	1286100 / 100 tests 1286050 / 25 tests
Clone:	22F6
Isotype:	Hamster IgG
Immunogen:	Helios peptide (aa 51-107)
Reactivity:	Human, Mouse
Preparation:	The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	VII 70322
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:	Intracellular Staining for 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 µl per million cells or 5 µl per 100 µl 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 offers improved staining and is highly recommended.



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

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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 αβ 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.

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