

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Helios in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 736440
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Helios Met1-Gln97 Accession # Q9UKS7
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

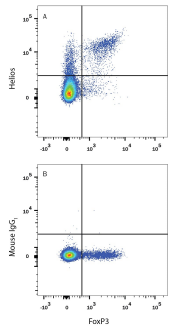
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10 ⁶ cells	See Below

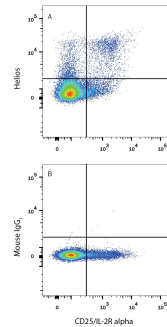
DATA

Intracellular Staining by Flow Cytometry



Detection of Helios in Human PBMCs Stimulated to Induce Tregs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) stimulated to induce Regulatory T Cells (Tregs) treated with 10 µg/mL Anti-CD3, 5 µg/mL Anti-CD28, 10 ng/mL Recombinant Human TGF-β1 (Catalog # 240-B), and 20 ng/mL Recombinant Human IL-2 (Catalog # 202-IL) overnight were stained with Rabbit Anti-Human/Mouse FoxP3 Alexa Fluor® 647-conjugated Monoclonal Antibody (Catalog # IC8214R) and either (A) Mouse Anti-Human Helios PE-conjugated Monoclonal Antibody (Catalog # IC73092P) or (B) Mouse IgG₁ Phycoerythrin Isotype Control (Catalog # IC002P). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for [Staining Intracellular Molecules](#).

Intracellular Staining by Flow Cytometry



Detection of Helios in Human PBMCs Stimulated to Induce Tregs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) stimulated to induce Regulatory T Cells (Tregs) treated with 10 µg/mL Anti-CD3, 5 µg/mL Anti-CD28, 10 ng/mL Recombinant Human TGF-β1 (Catalog # 240-B), and 20 ng/mL Recombinant Human IL-2 (Catalog # 202-IL) overnight were stained with Mouse Anti-Human CD25/IL-2 R alpha Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB1020G) and either (A) Mouse Anti-Human Helios PE-conjugated Monoclonal Antibody (Catalog # IC73092P) or (B) Mouse IgG₁ Phycoerythrin Isotype Control (Catalog # IC002P). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Helios, also known as IKZF2, is a 70 kDa DNA-binding transcription regulator in the Ikaros family that contains four N-terminal C2H2-type zinc finger domains (aa 112-219) and two C-terminal zinc finger domains (aa 471-523). Helios is expressed in developing hematopoietic and epithelial tissues and in adult T cells and thymic-derived regulatory T cells (Treg). It forms homodimers and also heterodimers with other Ikaros family proteins Ikaros, Pegasus, Eos, and Aiolos. Alternate splicing of human Helios generates a short isoform that lacks three of the the N-terminal zinc finger domains. This isoform is overexpressed in T cell leukemias where it can still dimerize with Ikaros proteins but functions as a dominant negative regulator. Within aa 1-97, human and mouse Helios share 96% aa sequence identity.