

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Helios in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 736423
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Helios Thr3-Gln97 Accession # Q9UKS7
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	0.5-25 µg/mL	See Below

DATA

<p>Western Blot</p> <p>Detection of Human Helios by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line. Gels were loaded with 30 µg of cytoplasmic (Cyto) and 15 µg of nuclear (Nuc) extracts. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Helios Monoclonal Antibody (Catalog # MAB73091) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Helios at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p> <p>Helios in Human Thymus. Helios was detected in immersion fixed paraffin-embedded sections of human thymus using Mouse Anti-Human Helios Monoclonal Antibody (Catalog # MAB73091) at 0.5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei in cells around Hassall's corpuscles. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.