

Anti-Hephaestin/HEPH Antibody Picoband®

Catalog Number: A05316-1

About HEPH

Enables ferroxidase activity. Involved in intestinal iron absorption; multicellular organismal-level iron ion homeostasis; and positive regulation of iron export across plasma membrane. Acts upstream of or within erythrocyte differentiation. Predicted to be located in perinuclear region of cytoplasm. Predicted to be active in basolateral plasma membrane. Orthologous to human HEPH (hephaestin).

Overview

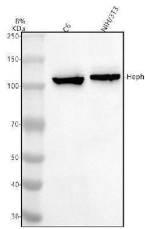
Product Name	Anti-Hephaestin/HEPH Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Hephaestin/HEPH Antibody Picoband® catalog # A05316-1. Tested in WB, IHC, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q9Z0Z4

Technical Details

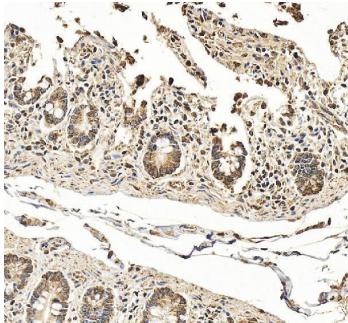
Immunogen	E.coli-derived human Hephaestin/HEPH recombinant protein (Position: E348-Q1157). Mouse Hephaestin/HEPH shares 85.6% and 96.2% amino acid (aa) sequence identity with human and rat Hephaestin/HEPH, respectively.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Mouse ELISA, 0.1-0.5 ug/ml



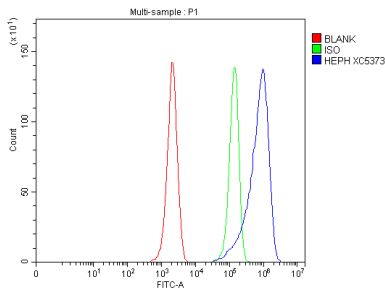
Anti-Hephaestin/HEPH Antibody Picoband® (A05316-1) Images



Western blot analysis of Hephaestin/HEPH using anti-Hephaestin/HEPH antibody (A05316-1). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat C6 whole cell lysates, Lane 2: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Hephaestin/HEPH antigen affinity purified polyclonal antibody (A05316-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Hephaestin/HEPH at approximately 130 kDa. The expected band size for Hephaestin/HEPH is at 130 kDa.



IHC analysis of Hephaestin/HEPH using anti-Hephaestin/HEPH antibody (A05316-1). Hephaestin/HEPH was detected in a paraffin-embedded section of human small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Hephaestin/HEPH Antibody (A05316-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Flow Cytometry analysis of EL-4 cells using anti-Hephaestin/HEPH antibody (A05316-1). Overlay histogram showing EL-4 cells stained with A05316-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Hephaestin/HEPH Antibody (A05316-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-Hephaestin/HEPH Antibody

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