

Anti-PHTF1 Antibody Picoband®

Catalog Number: A12488

About PHTF1

PHTF1 (putative homeodomain transcription factor 1), also known as PHTF, is a potential transcription regulator. It is a ubiquitously expressed integral, multipass membrane protein with predominant expression in testis. PHTF1 is associated with the ER (endoplasmic reticulum) and contains one bHLH (basic helix-loop-helix) domain. It is present in the cell during meiosis and spermiogenesis but, by the end of spermiogenesis, is released from the mature cell within the residual bodies. This implies that PHTF1 may play a role in the spermatozoa maturation process. In addition, PHTF1 is believed to interact with FEM1B and may be responsible for recruiting FEM1B to the surface of the ER membrane. This suggests that PHTF1 acts as a sequestering or anchoring protein for FEM1B. Two PHTF1 isoforms exist due to alternate splicing events. Isoform 2 is the shorter form and lacks the amino acid residues 648 to 762.

Overview

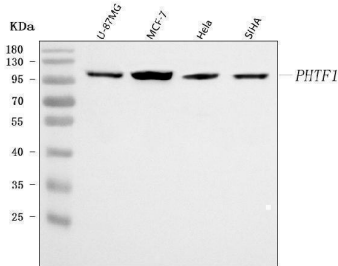
Product Name	Anti-PHTF1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-PHTF1 Antibody Picoband® catalog # A12488. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior 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	Q9UMS5

Technical Details

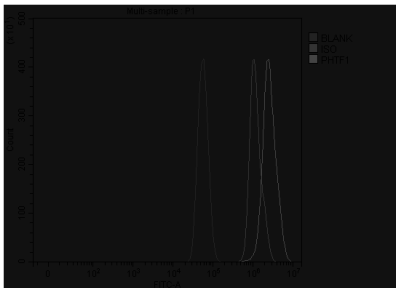
Immunogen	E.coli-derived human PHTF1 recombinant protein (Position: I188-Q430).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

Anti-PHTF1 Antibody Picoband® (A12488) Images



Western blot analysis of PHTF1 using anti-PHTF1 antibody (A12488). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U-87MG whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human SIHA 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-PHTF1 antigen affinity purified polyclonal antibody (Catalog # A12488) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PHTF1 at approximately 100 kDa. The expected band size for PHTF1 is at 87 kDa.



Flow Cytometry analysis of U87 cells using anti-PHTF1 antibody (A12488). Overlay histogram showing U87 cells stained with A12488 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PHTF1 Antibody (A12488, 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 (Red line) was also used as a control.

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Anti-PHTF1 Antibody

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