

Anti-MCL1 Antibody Picoband®

Catalog Number: PB9132

About MCL1

MCL1, also known as myeloid cell leukemia 1, is a protein that in humans is encoded the MCL1 gene. It is mapped to 1q21.3. MCL1 is a potent multidomain antiapoptotic protein of the BCL2 family that heterodimerizes with other BCL2 family members to protect against apoptotic cell death. MCL1 as an attractive candidate for regulation of hematopoietic stem cell homeostasis that is highly expressed in hematopoietic stem cells and regulated by growth factor signals. MCL1 is a critical and specific regulator essential for ensuring the homeostasis of early hematopoietic progenitors. During mitotic arrest, MCL1 protein levels decline markedly, through a posttranslational mechanism, potentiating cell death. Phosphorylation of MCL1 directs its interaction with the tumor suppressor protein FBW7, which is the substrate-binding component of a ubiquitin ligase complex.

Overview

Product Name	Anti-MCL1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MCL1 Antibody Picoband® catalog # PB9132. Tested in IHC, WB 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q07820

Technical Details

Immunogen	E.coli-derived human MCL1 recombinant protein (Position: M1-R350). Human MCL1 shares 82% and 78% amino acid (aa) sequences identity with mouse and rat MCL1, respectively.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Western blot, 0.1-0.5ug/ml, Human, Rat

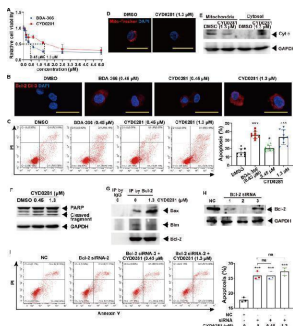
Anti-MCL1 Antibody Picoband® (PB9132) Images



Western blot analysis of MCL1 using anti-MCL1 antibody (PB9132). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human MCL1 protein 0.5 ng. 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-MCL1 antigen affinity purified polyclonal antibody (Catalog # PB9132) 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 MCL1 at approximately 40 kDa. The expected band size for MCL1 is at 40 kDa.

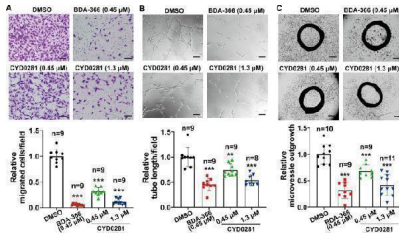


Western blot analysis of MCL1 using anti-MCL1 antibody (PB9132). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat spleen tissue lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human COLO320 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-MCL1 antigen affinity purified polyclonal antibody (Catalog # PB9132) 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 MCL1 at approximately 37 kDa. The expected band size for MCL1 is at 37 kDa.

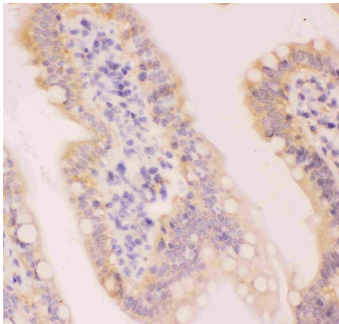


CYD0281 promotes HUVECs cell apoptosis by the exposure of the Bcl-2 BH3 domain. A Cell viability of HUVECs at 48 h. The exposure of the BH3 domain of Bcl-2 detected by immunofluorescence (IF) staining using anti-Bcl-2/BH3 domain antibody (B), and flow cytometry analysis of cell apoptosis (C) in HUVECs treated with BDA-366 and CYD0281 at the IC 50 concentration. HUVECs were treated with CYD0281 at the IC 50 concentration for 48 h, mitochondrial dysfunction was analyzed by Mito-Tracker Red CMXRos staining (D), Cyt c release (E) and PARP cleavage (F) were analyzed by western blotting assay, and Bcl-2 associated Bax or Bim was analyzed by co-IP using Bcl-2 antibody (G). H The expression of Bcl-2 in HUVECs was

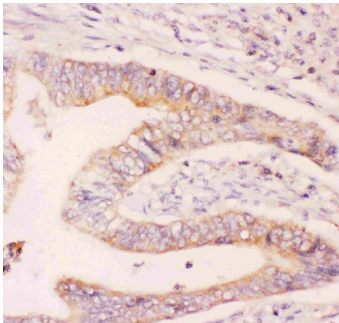
inhibited using siRNAs (1, 2, and 3) and analyzed by western blotting assay. I Flow cytometry analysis of cell apoptosis in Bcl-2-silenced HUVECs that were treated with CYD0281 (n = 3). Significant effect compared to the DMSO group: * P



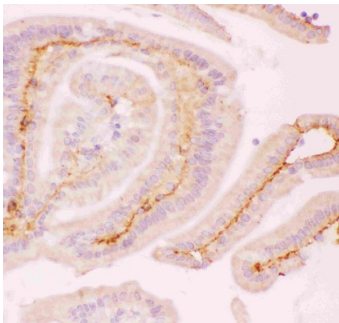
CYD0281 inhibits angiogenic differentiation of HUVECs in vitro. Representative microscopic images and quantification of cell migration (A), and tube formation in Matrigel (B). C Representative images of endothelial cells sprout and quantification from rat aortic ring assay at 8 days of treatment. Significant effect compared to the DMSO group: ** p



IHC analysis of MCL1 using anti-MCL1 antibody (PB9132). MCL1 was detected in a paraffin-embedded section of rat 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 1 ug/ml rabbit anti-MCL1 Antibody (PB9132) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of MCL1 using anti-MCL1 antibody (PB9132). MCL1 was detected in a paraffin-embedded section of human intestinal cancer 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 1 ug/ml rabbit anti-MCL1 Antibody (PB9132) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of MCL1 using anti-MCL1 antibody (PB9132). MCL1 was detected in a paraffin-embedded section of mouse 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 1 ug/ml rabbit anti-MCL1 Antibody (PB9132) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

1. PubMed ID: 32951326, Zhang L,Zhang J,Gong Y,Lv L.Systematic and experimental investigations of the anti-colorectal cancer mediated by genistein. Biofactors.2020 Nov;46(6):974-982.doi:10.1002/biof.1677.Epub 2020 Sep 20.PMID:32951326.

2. PubMed ID: 25747387, Liu N, Chen T, Wang X, Yang D, Xue B, Zhu H. Febs Lett. 2015 Apr 2;589(8):897-903. Doi: 10.1016/J.Febslet.2015.02.026. Epub 2015 Mar 3. Msi1 Confers Resistance To Trail By Activating Erk In Liver Cancer Cells.

Visit bosterbio.com/anti-mcl1-picoband-trade-antibody-pb9132-boster.html to see all 2 publications.

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Anti-MCL1 Antibody

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