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antibody and ELISA experts

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Anti-Cytochrome C CYCS Antibody Picoband™ (monoclonal, 15F10)

Catalog Number: M03529-5

About CYCS

CYCS is also known as CYC, HCS or THC4. This gene encodes a small heme protein that functions as a central component of the electron transport chain in mitochondria. The encoded protein associates with the inner membrane of the mitochondrion where it accepts electrons from cytochrome b and transfers them to the cytochrome oxidase complex. This protein is also involved in initiation of apoptosis. Mutations in this gene are associated with autosomal dominant nonsyndromic thrombocytopenia. Numerous processed pseudogenes of this gene are found throughout the human genome.

Overview

Product Name	Anti-Cytochrome C CYCS Antibody Picoband™ (monoclonal, 15F10)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cytochrome C CYCS Antibody Picoband™ (monoclonal, 15F10) catalog # M03529-5. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 15F10
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	Mouse
Uniprot ID	P99999

Technical Details

Immunogen	E.coli-derived human Cytochrome C recombinant protein (Position: G2-E105). Human Cytochrome C shares 91% amino acid (aa) sequence identity with both mouse and rat Cytochrome C.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x106 cells

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Anti-Cytochrome C CYCS Antibody Picoband™ (monoclonal, 15F10) (M03529-5) Images

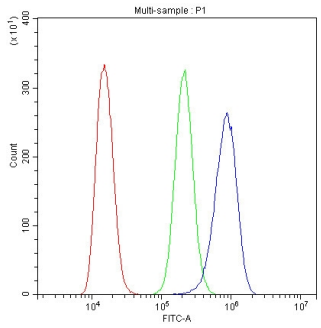

Figure 1. Flow Cytometry analysis of A431 cells using anti-Cytochrome C antibody (M03529-5).
Overlay histogram showing A431 cells stained with M03529-5 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cytochrome C Antibody (M03529-5,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

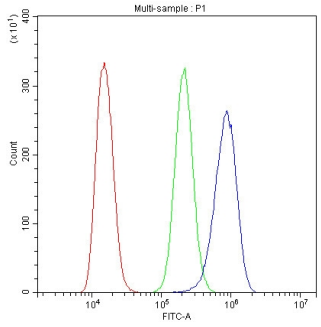

Figure 2. Flow Cytometry analysis of A431 cells using anti-Cytochrome C antibody (M03529-5).
Overlay histogram showing A431 cells stained with M03529-5 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cytochrome C Antibody (M03529-5,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

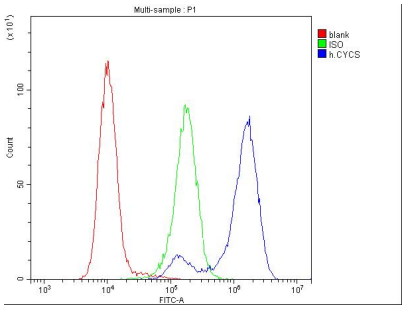

Figure 3. Flow Cytometry analysis of K562 cells using anti-Cytochrome C antibody (M03529-5).
Overlay histogram showing K562 cells stained with M03529-5 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cytochrome C Antibody (M03529-5,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

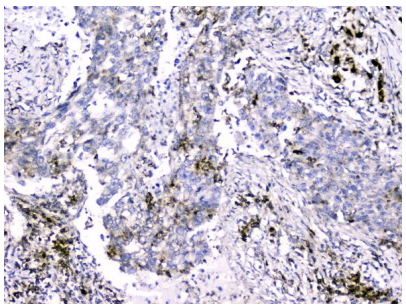

Figure 4. IHC analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Cytochrome C was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-Cytochrome C Antibody (M03529-5) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at

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37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

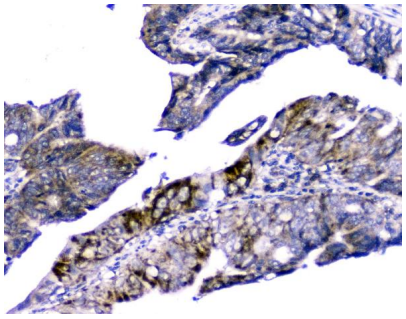

Figure 5. IHC analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Cytochrome C was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-Cytochrome C Antibody (M03529-5) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

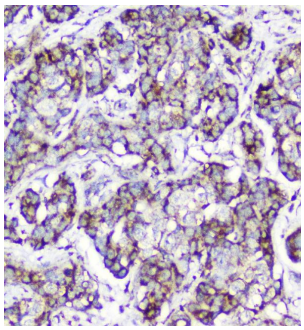

Figure 6. IHC analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Cytochrome C was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-Cytochrome C Antibody (M03529-5) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

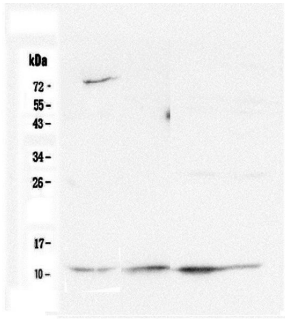

Figure 7. Western blot analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Electrophoresis was performed on a 12% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysate,
Lane 2: human HepG2 whole cell lysate
Lane 3: human K562 whole cell lysate,
Lane 4: human Caco-2 whole cell lysate.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Cytochrome C antigen affinity purified monoclonal antibody (Catalog # M03529-5) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system.

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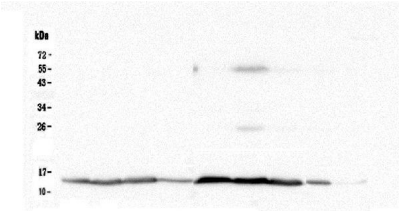

Figure 8. Western blot analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Electrophoresis was performed on a 12% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysate,
Lane 2: rat heart tissue lysate,
Lane 3: rat kidney tissue lysate,
Lane 4: rat testis tissue lysate,
Lane 5: mouse brain tissue lysate,
Lane 6: mouse heart tissue lysate,
Lane 7: mouse kidney tissue lysate,
Lane 8: mouse testis tissue lysate,
Lane 9: mouse Neuro-2a whole cell lysate.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Cytochrome C antigen affinity purified polyclonal antibody (Catalog # M03529-5) 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system.

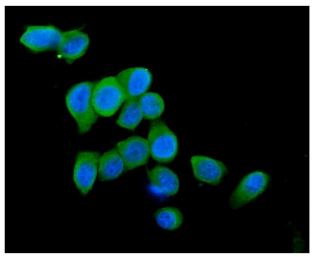

Figure 9. IF analysis of Cytochrome C using anti-Cytochrome C antibody (M03529-5).
Cytochrome C was detected in immunocytochemical section of MCF7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-Cytochrome C Antibody (M03529-5) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

16 Publications Citing This Product

1. PubMed ID: 31702040, Zhang Z,Wang J,Zhu Y,Zhang H,Wang H.Astragaloside IV alleviates myocardial damage induced by type 2 diabetes via improving energy metabolism.Mol Med Rep.2019 Nov;20(5):4612-4622.doi:10.3892/mmr.2019.10716.Epub 2019 Oct 1.PMID:31702040; PMCID:PMC6797977.

2. PubMed ID: 32733634, Zhang T,Chen Y,Cai J,Pan M,Sun Q,Zhang J,Sun C.SOCS2 Inhibits Mitochondrial Fatty Acid Oxidation via Suppressing LepR/JAK2/AMPK Signaling Pathway in Mouse Adipocytes.Oxid Med Cell Longev.2020 Jul 13;2020:3742542.doi:10.1155/2020/3742542.PMID:32733634;PMCI

3. PubMed ID: 25336971, Song D, Yue W, Li Z, Li J, Zhao J, Zhang N. Onco Targets Ther. 2014 Sep 30;7:1801-10. Doi: 10.2147/Ott.S52426. Ecollection 2014. Study Of The Mechanism Of Sonodynamic Therapy In A Rat Glioma Model.

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