

Anti-Cytochrome p450 2C19/CYP2C19 Antibody Picoband® (monoclonal, 10G5)

Catalog Number: M02102

About CYP2C19

Cytochrome P450 2C19 (abbreviated CYP2C19) encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, omeprazole, diazepam and some barbiturates. Polymorphism within this gene is associated with variable ability to metabolize mephenytoin, known as the poor metabolizer and extensive metabolizer phenotypes. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24.

Overview

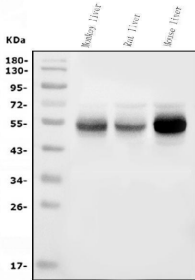
Product Name	Anti-Cytochrome p450 2C19/CYP2C19 Antibody Picoband® (monoclonal, 10G5)
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-Cytochrome p450 2C19/CYP2C19 Antibody Picoband® (monoclonal, 10G5) catalog # M02102. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Monkey, 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	Flow Cytometry, IHC, WB
Clonality	Monoclonal 10G5
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
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	P33261

Technical Details

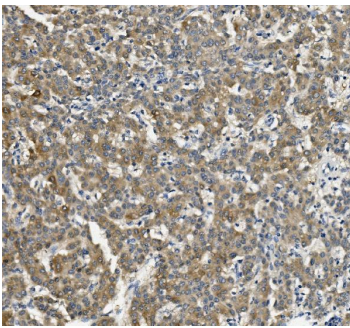
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Cytochrome p450 2C19/CYP2C19.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
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.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat, Monkey Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

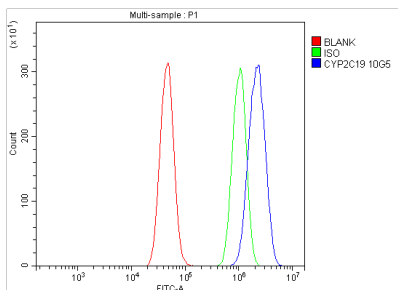
Anti-Cytochrome p450 2C19/CYP2C19 Antibody Picoband® (monoclonal, 10G5) (M02102) Images



Western blot analysis of Cytochrome p450 2C19/CYP2C19 using anti-Cytochrome p450 2C19/CYP2C19 antibody (M02102). 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 50ug of sample under reducing conditions. Lane 1: monkey liver tissue lysates, Lane 2: rat liver tissue lysates, Lane 3: mouse liver tissue lysates. 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 p450 2C19/CYP2C19 antigen affinity purified monoclonal antibody (Catalog # M02102) 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. A specific band was detected for Cytochrome p450 2C19/CYP2C19 at approximately 55KD. The expected band size for Cytochrome p450 2C19/CYP2C19 is at 55KD.



IHC analysis of Cytochrome p450 2C19/CYP2C19 using anti-Cytochrome p450 2C19/CYP2C19 antibody (M02102). Cytochrome p450 2C19/CYP2C19 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Cytochrome p450 2C19/CYP2C19 Antibody (M02102) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



Flow Cytometry analysis of A431 cells using anti-Cytochrome p450 2C19/CYP2C19 antibody (M02102). Overlay histogram showing A431 cells stained with M02102 (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 mouse anti-Cytochrome p450 2C19/CYP2C19 Antibody (M02102, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/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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