

Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband®

Catalog Number: PB9190

About CYP2E1

Cytochrome P450 2E1 (abbreviated CYP2E1), a member of the cytochrome P450 mixed-function oxidase system, is involved in the metabolism of xenobiotics in the body. In humans, the CYP2E1 enzyme is encoded by the CYP2E1 gene. It is mapped to 10q26.3. While it is involved in the oxidative metabolism of a small range of substrates (mostly small polar molecules), there are many important drug interactions mediated by CYP2E1. Most drugs undergo deactivation by CYP2E1, either directly or by facilitated excretion from the body. Also, many substances are bioactivated by CYP2E1 to form their active compounds. In addition, CYP2E1 is an important enzyme for the conversion of ethanol to acetaldehyde and to acetate in humans. In the conversion sequence of acetyl-CoA to glucose, CYP2E1 transforms acetone via acetol into propylene glycol and methylglyoxal, the precursors of pyruvate, acetate and lactate.

Overview

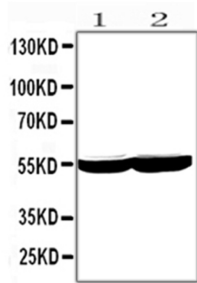
Product Name	Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband® catalog # PB9190. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium 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 4 mg Trehalose, 0.9 mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05 mg 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	Rabbit
Uniprot ID	P05181

Technical Details

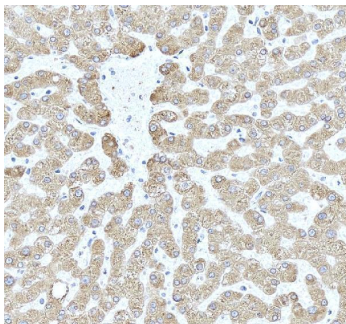
Immunogen	E.coli-derived human CYP2E1 recombinant protein (Position: M1-Y310). Human CYP2E1 shares 73% and 74% amino acid (aa) sequences identity with mouse and rat CYP2E1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western 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, Mouse, Rat, Human Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human

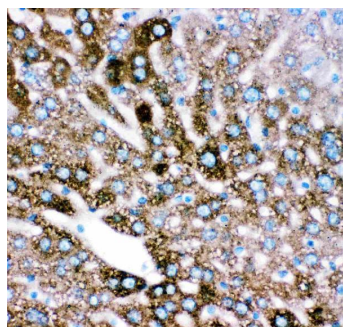
Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband® (PB9190) Images



Western blot analysis of CYP2E1 using anti-CYP2E1 antibody (PB9190). 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: rat liver tissue lysate, lane 2: mouse liver tissue 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-CYP2E1 antigen affinity purified polyclonal antibody (Catalog # PB9190) 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. A specific band was detected for CYP2E1 at approximately 55KD. The expected band size for CYP2E1 is at 57KD.

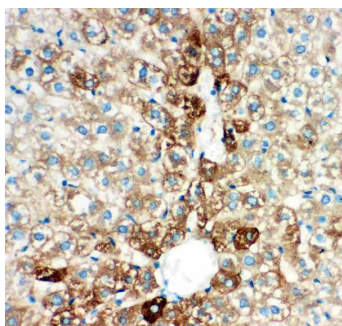


IHC analysis of CYP2E1 using anti-CYP2E1 antibody (PB9190). CYP2E1 was detected in a paraffin-embedded section of human liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CYP2E1 Antibody (PB9190) 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.



IHC analysis of CYP2E1 using anti-CYP2E1 antibody (PB9190). CYP2E1 was detected in paraffin-embedded section of mouse liver 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 1ug/ml rabbit anti-CYP2E1 Antibody (PB9190) 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 CYP2E1 using anti-CYP2E1 antibody (PB9190). CYP2E1 was detected in paraffin-embedded section of rat liver 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



1ug/ml rabbit anti-CYP2E1 Antibody (PB9190) 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.

7 Publications Citing This Product

1. PubMed ID: 10.1002/ptr.5867, Nephroprotective Effects of Anthocyanin from the Fruits of Panax ginseng (GFA) on Cisplatin-Induced Acute Kidney Injury in Mice
2. PubMed ID: -, Thida,M.,Li,B.,Zhang,X.,Chen,C.,& Zhang,X.(2021).Echinacoside alleviates acetaminophen-induced liver injury by attenuating oxidative stress and inflammatory cytokines in mice.J Appl Biomed,19(2),112.doi:10.32725/jab.2021.011
3. PubMed ID: 33354276, Zhai T,Xu W,Liu Y,Qian K,Xiong Y,Chen Y.Honokiol Alleviates Methionine-Choline Deficient Diet-Induced Hepatic Steatosis and Oxidative Stress in C57BL/6 Mice by Regulating CFLAR-JNK Pathway.Oxid Med Cell Longev.2020 Nov 27;2020:2313641.doi:10.1155/2020/231

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