

Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband®

Catalog Number: PA1909

About Cyp2e1

CYP2E1, also known as P450IIE1, is a member of the P450IIE subfamily which is ethanol-inducible. It has at least 1 gene which is mapped to 10q24.3-qter, and a second is likely in rat and in man. Both the rat and human proteins encoded by this gene contain 493 amino acids and calculated molecular masses of 56,634 and 56,916 daltons, respectively. In addition, genetic polymorphisms in the 5-prime flanking region of the human P450IIE1 gene affected its binding of transacting factor and changed its transcriptional regulation, which may lead to interindividual differences of microsomal drug oxidation activity. P450IIE1 is an important enzyme for the catalysis of the conversion of ethanol to acetaldehyde and to acetate in humans, and it is also involved in the metabolism of nitrosamines. Due to the possible correlation of P450IIE1 genes with malignancy, clinical studies of RFLP patterns of these genes in cancer may be useful.

Overview

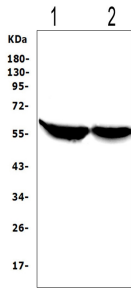
Product Name	Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Cytochrome P450 2E1/CYP2E1 Antibody catalog # PA1909. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that 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 antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg 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	Q05421

Technical Details

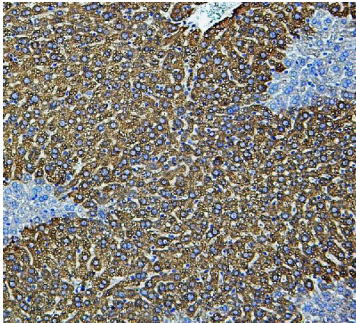
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse CYP2E1, identical to the related rat sequence.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	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 Western blot, 0.1-0.5ug/ml, Mouse, Rat

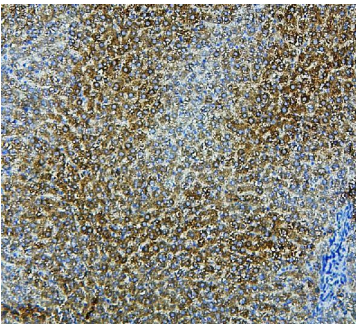
Anti-Cytochrome P450 2E1/CYP2E1 Antibody Picoband® (PA1909) Images



Western blot analysis of CYP2E1 using anti-CYP2E1 antibody (PA1909). 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 lysates, Lane 2: 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 rabbit anti-CYP2E1 antigen affinity purified polyclonal antibody (Catalog # PA1909) 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 56KD. The expected band size for CYP2E1 is at 56KD.



IHC analysis of CYP2E using anti-CYP2E antibody (PA1909). CYP2E 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-CYP2E Antibody (PA1909) 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.



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6 Publications Citing This Product

1. 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
2. PubMed ID: 33354276, Zhai T,Xu W,Liu Y,Qian K,Xiong Y,Chen Y.Honoki 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

3. PubMed ID: 25319358, Jiang Y, Fan X, Wang Y, Chen P, Zeng H, Tan H, Gonzalez Fj, Huang M, Bi H. Toxicol Sci. 2015 Jan;143(1):107-15. Doi: 10.1093/Toxsci/Kfu216. Epub 2014 Oct 14. Schisandrol B Protects Against Acetaminophen-Induced Hepatotoxicity By Inhibition Of Cyp-...

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Anti-Cytochrome P450 2E1/CYP2E1 Antibody

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