

Rabbit anti-Mouse, Rat Cytochrome P450 1A2/Cyp1a2 Polyclonal Antibody | anti-Cyp1a2 antibody

Anti-Cytochrome P450 1A2/Cyp1a2 Antibody

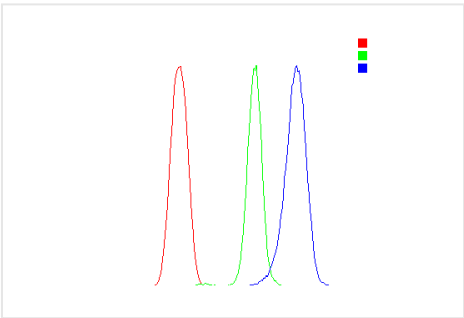
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125563	Rabbit	Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

Cytochrome P450 1A2/Cyp1a2; Polyclonal Antibody; Anti-Cytochrome P450 1A2/Cyp1a2 Antibody; Cyp1a2; Cyp1a-2; Cytochrome P450 1A21; CYP1A2; Cholesterol 25-hydroxylase; Cytochrome P450-P2; Cytochrome P450-P3; Hydroperoxy icosatetraenoate dehydratase; cytochrome P450; family 1; subfamily a; polypeptide 2; anti-Cyp1a2 antibody

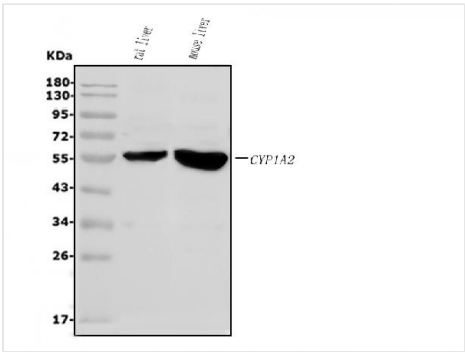
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Cytochrome P450 1A2/Cyp1a2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-Cyp1a2 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived mouse Cytochrome P450 1A2/Cyp1a2 recombinant protein (Position: H184-K513).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of HEPA1-6 cells using anti-Cytochrome P450 1A2/Cyp1a2 antibody (AAA125563).Overlay histogram showing HEPA1-6 cells stained with AAA125563 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cytochrome P450 1A2/Cyp1a2 Antibody (AAA125563, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of Cytochrome P450 1A2/Cyp1a2 using anti-Cytochrome P450 1A2/Cyp1a2 antibody (AAA125563).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-Cytochrome P450 1A2/Cyp1a2 antigen affinity purified polyclonal antibody (Catalog # AAA125563) at 0. 25 μg/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for Cytochrome P450 1A2/Cyp1a2 at approximately 58KD. The expected band size for Cytochrome P450 1A2/Cyp1a2 is at 58KD.

ADDITIONAL INFORMATION

Related Product Information for anti-Cyp1a2 antibody	CYP1A2 (Cytochrome P450, Subfamily I, Polypeptide 2) is a member of the cytochrome P450 mixed-function oxidase system and is involved in the metabolism of xenobiotics in the body. CYP1A2 is a member of the cytochrome P450 superfamily of enzymes. In humans, the CYP1A2 enzyme is encoded by the CYP1A2 gene. CYP1A2 localizes to the endoplasmic reticulum and its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The CYP1A2 gene encodes a P450 enzyme involved in O-deethylation of phenacetin. Ikeya et al. (1989) found that the human CYP1A2 gene spans almost 7. 8 kb and contains 7 exons. The CYP1A2 gene is mapped on 15q24. 1. CYP1A2 accounts for nearly 15% of the cytochrome P450 in the human liver. CYP1A2 displays higher activity in men than in women, and is inhibited by oral contraceptives. Inducers of CYP1A2 include cruciferous vegetables. Cigarette smoking has also been shown to increase CYP1A2 activity. Expression of CYP1A2 appears to be induced by various dietary constituents.
References	1. Browning, S. L., Tarekegn, A., Bekele, E., Bradman, N., Thomas, M. G. CYP1A2 is more variable than previously thought: a genomic biography of the gene behind the human drug-metabolizing enzyme. Pharmacogenet. Genomics 20: 647-664, 2010. 2. Ikeya, K., Jaiswal, A. K., Owens, R. A., Jones, J. E., Nebert, D. W., Kimura, S. Human CYP1A2: sequence, gene structure, comparison with the mouse and rat orthologous gene, and differences in liver 1A2 mRNA expression. Molec. Endocr. 3: 1399-1408, 1989. 3. Nakajima, M., Yokoi, T., Mizutani, M., Kinoshita, M., Funayama, M., Kamataki, T. Genetic polymorphism in the 5-prime-flanking region of human CYP1A2 gene: effect on theCYP1A2 inducibility in humans. J. Biochem. 125: 803-808, 1999.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6753566
NCBI GeneID	13077
NCBI Accession #	NP_034123.1
NCBI GenBank Nucleotide #	NM_009993.3
UniProt Accession #	P00186; Q9QWJ4

Molecular Weight	58,184 Da
NCBI Official Full Name	cytochrome P450 1A2
NCBI Official Synonym Full Names	cytochrome P450, family 1, subfamily a, polypeptide 2
NCBI Official Symbol	Cyp1a2
NCBI Official Synonym Symbols	CP12; Cyp1a1; P450-3
NCBI Protein Information	cytochrome P450 1A2
UniProt Protein Name	Cytochrome P450 1A2
UniProt Gene Name	Cyp1a2
UniProt Synonym Gene Names	Cyp1a-2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cytochrome-p450-1a2-cyp1a2-antibody-direct-elisa-flow-cytometry-western-blot-elisa/125563>