

Rabbit CYP7A1 Polyclonal Antibody | anti-CYP7A1 antibody

Anti-CYP7A1 Antibody

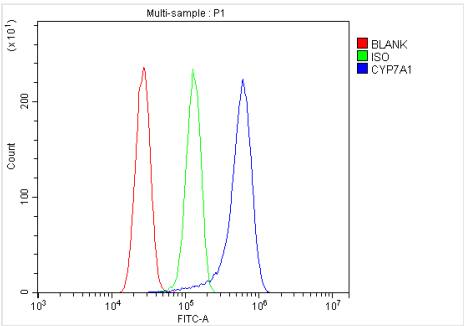
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125614	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

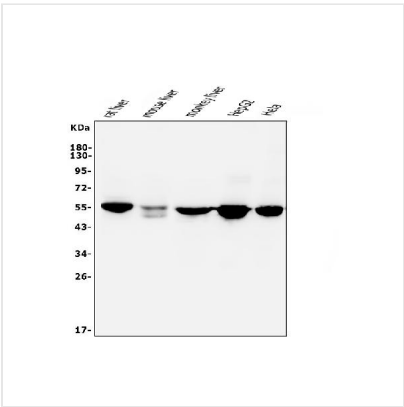
CYP7A1; Polyclonal Antibody; Anti-CYP7A1 Antibody; CYP7; Cytochrome P450 7A1; 24-hydroxycholesterol 7-alpha-hydroxylase; EC 1. 14. 14. 26; CYPVII; Cholesterol 7-alpha-hydroxylase; Cholesterol 7-alpha-monooxygenase; EC 1. 14. 14. 23; cytochrome P450 family 7 subfamily A member 1; anti-CYP7A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for CYP7A1 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-CYP7A1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human CYP7A1 recombinant protein (Position: I10-L504).
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 U87 cells using anti-CYP7A1 antibody (AAA125614).Overlay histogram showing U87 cells stained with AAA125614 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CYP7A1 Antibody (AAA125614, 1µg/1x106 cells) for 30 min at 20 degree C. DyLight488 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 CYP7A1 using anti-CYP7A1 antibody (AAA125614).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 lysatesLane 2: mouse liver tissue lysatesLane 3: monkey liver tissue lysatesLane 4: human HepG2 whole cell lysatesLane 5: human Hele whole cell 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-CYP7A1 antigen affinity purified polyclonal antibody (Catalog # AAA125614) at 0. 5 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 CYP7A1 at approximately 54KD. The expected band size for CYP7A1 is at 54KD.

ADDITIONAL INFORMATION

Related Product Information for anti-CYP7A1 antibody	CYP7A1(Cytochrome P450 Subfamily VIIA Polypeptide 1), also called CYP7 or CHOLESTEROL 7-ALPHA-HYDROXYLASE, is an enzyme that in humans is encoded by the CYP7A1 gene. Using both mouse-human somatic cell hybrids and in situ chromosomal hybridization, Cohen et al. (1992) mapped the CYP7 gene to 8q11-q12. By transfection of reporter constructs, mutation analysis, and DNase footprinting, Molowa et al. (1992) identified areas of the CYP7A1 promoter region that showed hepatocyte-specific activation. They found HNF3 to be an activator of CYP7A1 activity. Agellon et al. (2002) found that wildtype mice and mice transgenic for human CYP7A1 respond differently to cholesterol feeding. Cholesterol feeding stimulated Cyp7a1 mRNA abundance and enzymatic activity in wildtype mice, but repressed human CYP7A1 mRNA and activity in transgenic mice.
References	1. Agellon, L. B., Drover, V. A. B., Cheema, S. K., Gbaguidi, G. F., Walsh, A. Dietary cholesterol fails to stimulate the human cholesterol 7-alpha-hydroxylase gene (CYP7A1) in transgenic mice. J. Biol. Chem. 277: 20131-20134, 2002. 2. Cohen, J. C., Cali, J. J., Jelinek, D. F., Mehrabian, M., Sparkes, R. S., Lusi, A. J., Russell, D. W., Hobbs, H. H. Cloning of the human cholesterol 7-alpha-hydroxylase gene (CYP7) and localization to chromosome 8q11-q12. Genomics 14: 153-161, 1992. 3. Molowa, D. T., Chen, W. S., Cimic, G. M., Tan, C. P. Transcriptional regulation of the human cholesterol 7 alpha-hydroxylase gene. Biochemistry 31: 2539-2544, 1992.

NCBI AND UNIPROT INFORMATION

NCBI GI #	166295200
NCBI GeneID	1581
NCBI Accession #	NP_000771.2
NCBI GenBank Nucleotide #	NM_000780.3
UniProt Accession #	P22680; P78454; Q3MIL8; Q7KZ19
Molecular Weight	57,661 Da

NCBI Official Full Name	cholesterol 7-alpha-monooxygenase
NCBI Official Synonym Full Names	cytochrome P450, family 7, subfamily A, polypeptide 1
NCBI Official Symbol	CYP7A1
NCBI Official Synonym Symbols	CP7A; CYP7; CYPVII
NCBI Protein Information	cholesterol 7-alpha-monooxygenase; cytochrome P450 7A1; cholesterol 7-alpha-hydroxylase; cytochrome P450, subfamily VIIA polypeptide 1
UniProt Protein Name	Cholesterol 7-alpha-monooxygenase
UniProt Gene Name	CYP7A1
UniProt Synonym Gene Names	CYP7
UniProt Entry Name	CP7A1_HUMAN

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/cyp7a1-antibody-direct-elisa-flow-cytometry-western-blot-elisa/125614>