

Basic Information

Product Name	Anti-CYP7A1 Antibody	
Gene Name	CYP7A1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human CYP7A1 recombinant protein (Position: I10-L504).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	58 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed): 1:50-200 Immunocytochemistry/Immunofluorescence(ICC/IF): 1:50-400 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

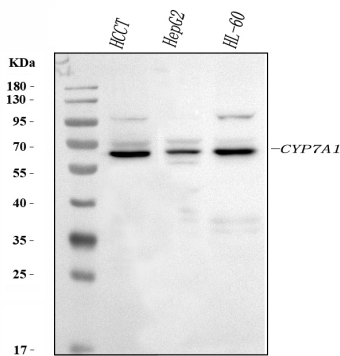
Background Information

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.

Reference

Anti-CYP7A1 Antibody 被引用在1文献中。

Selected Validation Data



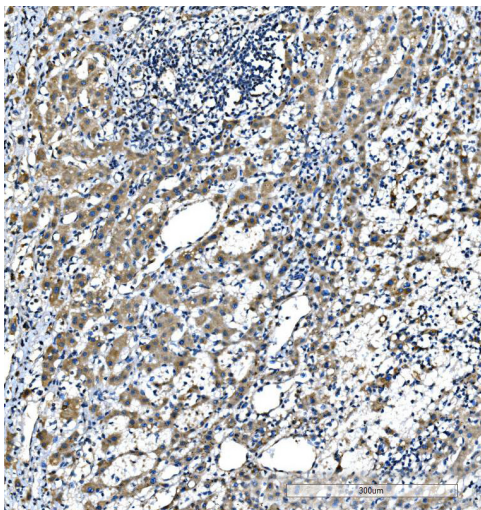
Western blot analysis of CYP7A1 using anti-CYP7A1 antibody (A01601). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HCCT whole cell lysates,

Lane 2: HepG2 whole cell lysates,

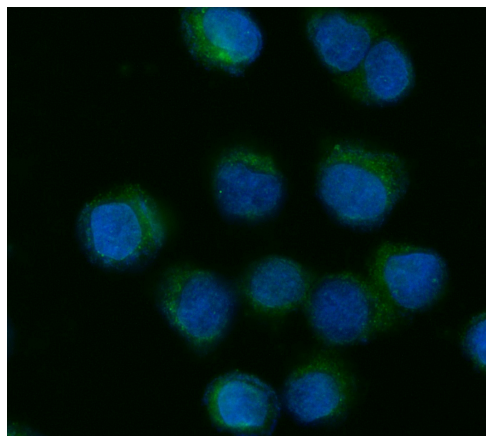
Lane 3: HL-60 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CYP7A1 antigen affinity purified polyclonal antibody (A01601) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CYP7A1 at approximately 58 kDa. The expected band size for CYP7A1 is at 58 kDa.



IHC analysis of CYP7A1 using anti-CYP7A1 antibody (A01601).

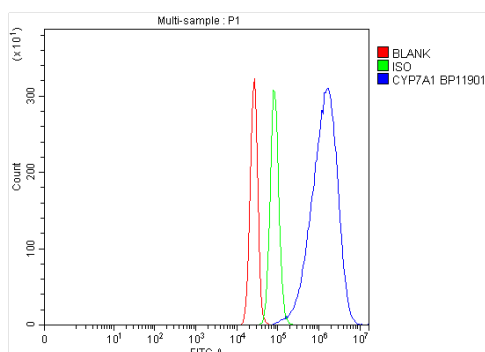
CYP7A1 was detected in a paraffin-embedded section of human liver cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-CYP7A1 Antibody (A01601) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of CYP7A1 using anti-CYP7A1 antibody (A01601).

CYP7A1 was detected in an immunocytochemical section of SiHa cells.

The section was incubated with rabbit anti-CYP7A1 Antibody (A01601) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of SiHa cells using anti-CYP7A1 antibody (A01601).

Overlay histogram showing SiHa cells stained with A01601 (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 rabbit anti-CYP7A1 Antibody (A01601) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.