

## Rabbit CYP7B1 Polyclonal Antibody | anti-CYP7B1 antibody

Anti-CYP7B1 Antibody Picoband

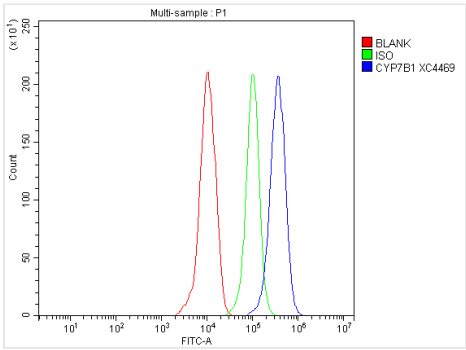
| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                |
|-----------|--------|-------------------|-----------------------------------------------------------------------------|
| AAA128209 | Rabbit | Human, Mouse, Rat | ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

CYP7B1; Polyclonal Antibody; Anti-CYP7B1 Antibody Picoband; Cytochrome P450 7B1; cytochrome P450 family 7 subfamily B member 1; 24-hydroxycholesterol 7-alpha-hydroxylase; EC 1.14.14.26; 25/26-hydroxycholesterol 7-alpha-hydroxylase; EC 1.14.14.29; 3-hydroxysteroid 7-alpha hydroxylase; Oxysterol 7-alpha-hydroxylase; anti-CYP7B1 antibody

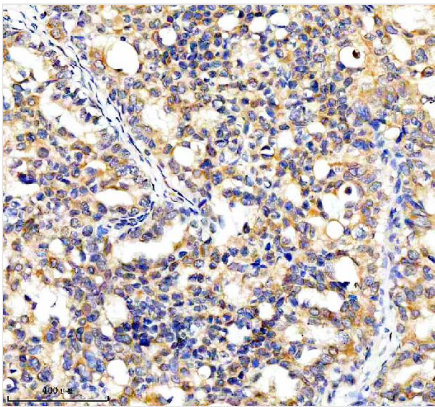
### PRODUCT SPECIFICATIONS

|                                                  |                                                                                                                                                                                                                       |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                             | Rabbit                                                                                                                                                                                                                |
| Reactivity                                       | Human, Mouse, Rat                                                                                                                                                                                                     |
| Clonality                                        | Polyclonal                                                                                                                                                                                                            |
| Isotype                                          | Rabbit IgG                                                                                                                                                                                                            |
| Purity/Purification                              | Immunogen affinity purified.                                                                                                                                                                                          |
| Form/Format                                      | Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                |
| Applicable Applications for anti-CYP7B1 antibody | ELISA, FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                       |
| Immunogen                                        | E coli-derived human CYP7B1 recombinant protein (Position: Q127-D391). Human CYP7B1 shares 62.3% and 63% amino acid (aa) sequence identity with mouse and rat CYP7B1, respectively.                                   |
| Reconstitution                                   | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                                                             |
| Cross Reactivity                                 | No cross-reactivity with other proteins                                                                                                                                                                               |
| Preparation and Storage                          | At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing. |



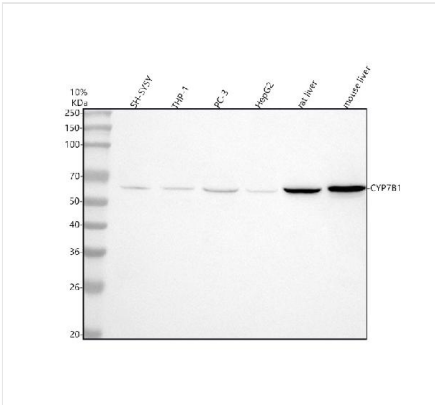
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of THP-1 cells using anti-CYP7B1 antibody (AAA128209).Overlay histogram showing THP-1 cells stained with AAA128209 (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-CYP7B1 Antibody (AAA128209, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of CYP7B1 using anti-CYP7B1 antibody (AAA128209).CYP7B1 was detected in a paraffin-embedded section of human breast cancer 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 2ug/ml rabbit anti-CYP7B1 Antibody (AAA128209) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of CYP7B1 using anti-CYP7B1 antibody (AAA128209).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 30 ug of sample under reducing conditions.Lane 1: human SH-SY5Y whole cell lysates,Lane 2: human THP-1 whole cell lysates,Lane 3: human PC-3 whole cell lysates,Lane 4: human HepG2 whole cell lysates,Lane 5: rat liver tissue lysates,Lane 6: mouse liver tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-CYP7B1 antigen affinity purified polyclonal antibody (AAA128209) at 0.5ug/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 CYP7B1 at approximately 58 kDa. The expected band size for CYP7B1 is at 58 kDa.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-CYP7B1 antibody | 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. |
| Product Categories/Family for anti-CYP7B1 antibody   | Primary Antibodies                                                                                                                                                                                                                                                                |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | <p>1. Arnoldi, A., Crimella, C., Tenderini, E., Martinuzzi, A., D'Angelo, M. G., Musumeci, O., Toscano, A., Scarlato, M., Fantin, M., Bresolin, N., Bassi, M. T. Clinical phenotype variability in patients with hereditary spastic paraplegia type 5 associated with CYP7B1 mutations. Clin. Genet. 81: 150-157, 2012.2. Biancheri, R., Ciccolella, M., Rossi, A., Tessa, A., Cassandrini, D., Minetti, C., Santorelli, F. M. White matter lesions in spastic paraplegia with mutations in SPG5/CYP7B1. Neuromusc. Disord. 19: 62-65, 2009.3. Biddinger, S. B., Haas, J. T., Yu, B. B., Bezy, O., Jing, E., Zhang, W., Unterman, T. G., Carey, M. C., Kahn, C. R. Hepatic insulin resistance directly promotes formation of cholesterol gallstones. Nature Med. 14: 778-782, 2008.</p> |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                             |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 4758104                                                                                                                                                                                                     |
| NCBI GeneID                      | 9420                                                                                                                                                                                                        |
| NCBI Accession #                 | NP_004811.1                                                                                                                                                                                                 |
| NCBI GenBank Nucleotide #        | NM_004820.3                                                                                                                                                                                                 |
| UniProt Accession #              | O75881; Q9UNF5; B2RN07                                                                                                                                                                                      |
| Molecular Weight                 | 58,256 Da                                                                                                                                                                                                   |
| NCBI Official Full Name          | 25-hydroxycholesterol 7-alpha-hydroxylase                                                                                                                                                                   |
| NCBI Official Synonym Full Names | cytochrome P450, family 7, subfamily B, polypeptide 1                                                                                                                                                       |
| NCBI Official Symbol             | CYP7B1                                                                                                                                                                                                      |
| NCBI Official Synonym Symbols    | CP7B; CBAS3; SPG5A                                                                                                                                                                                          |
| NCBI Protein Information         | 25-hydroxycholesterol 7-alpha-hydroxylase; cytochrome P450 7B1; oxysterol 7alpha-hydroxylase; oxysterol 7-alpha-hydroxylase; cytochrome P450, subfamily VIIB (oxysterol 7 alpha-hydroxylase), polypeptide 1 |
| UniProt Protein Name             | 25-hydroxycholesterol 7-alpha-hydroxylase                                                                                                                                                                   |
| UniProt Gene Name                | CYP7B1                                                                                                                                                                                                      |
| UniProt Entry Name               | CP7B1_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.