

For Research Use Only

# CYP3A4 Polyclonal antibody

Catalog Number: 18227-1-AP **66 Publications**



## Basic Information

|   |  |   |
|---|--|---|
| <b>Catalog Number:</b><br>18227-1-AP                          | <b>GenBank Accession Number:</b><br>BC101631                               | <b>Purification Method:</b><br>Antigen affinity purification        |
| <b>Size:</b><br>150ul , Concentration: 800 ug/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>1576  | <b>Recommended Dilutions:</b><br>WB 1:1000-1:4000<br>IHC 1:50-1:500 |
| <b>Source:</b><br>Rabbit                                      | <b>UNIPROT ID:</b><br>P08684   |   |
| <b>Isotype:</b><br>IgG  | <b>Full Name:</b><br>cytochrome P450, family 3, subfamily A, polypeptide 4 |   |
| <b>Immunogen Catalog Number:</b><br>AG13074                   | <b>Calculated MW:</b><br>503 aa, 57 kDa                                    |   |
|   | <b>Observed MW:</b><br>51-57 kDa   |   |

## Applications

|  |   |
|--|---|
| <b>Tested Applications:</b><br>WB, IHC, ELISA  | <b>Positive Controls:</b><br>WB : rat liver tissue, mouse liver tissue, mouse brain tissue<br>IHC : human liver tissue, |
| <b>Cited Applications:</b><br>WB, IHC, IF  |   |
| <b>Species Specificity:</b><br>human, mouse, rat   |   |
| <b>Cited Species:</b><br>human, mouse, rat, monkey   |   |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |   |

## Background Information

Cytochrome P450 3A(CYP3A) belongs to the cytochrome P450 family and the enzymes constitute an important detoxification system that contributes to primary metabolism of more than half of all prescribed medications. CYP3A expression determines impairment of drug absorption and efficient systemic clearance in a tissue-specific manner (PMID:17975676). The highest amounts of drug-metabolizing cytochromes P-450 are found in the liver and intestine, with lower amounts found in other organs, including the kidney, lung, and brain. LPS that has reached the circulation stimulates a TLR4-dependent mechanism in the periphery, evoking a reduction in Cyp3a11 expression and metabolism in the liver (PMID: 15878984). Human CYP3A4 is homologous to five mouse P450 isoforms, namely, Cyp3a11, Cyp3a16, Cyp3a41a, Cyp3a41b, and Cyp3a44 (PMID: 22446519). And CYP3A4 is also the human homologue of rat CYP3A1 and CYP3A2 (PMID: 27546062, PMID: 32874920).

## Notable Publications

| Author        | Pubmed ID | Journal       | Application |
|---------------|-----------|---------------|-------------|
| Zhenyu Wang   | 31588244  | Theranostics  | IHC         |
| Chengming Wen | 34575568  | Pharmaceutics | WB          |
| Linjie Lv     | 25203445  | Hepatology    | IF          |

## Storage

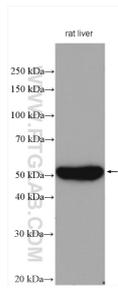
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

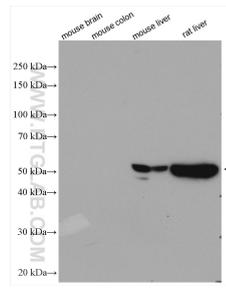
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

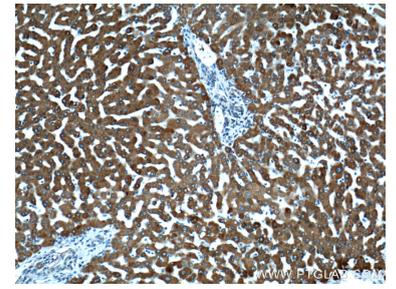
## Selected Validation Data



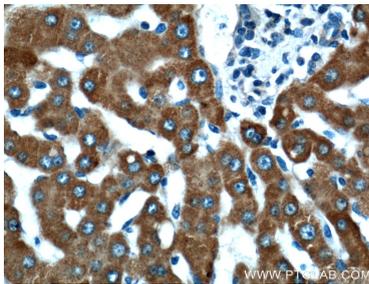
Rat liver tissue was subjected to SDS PAGE followed by western blot with 18227-1-AP (CYP3A4 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 18227-1-AP (CYP3A4 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours (mouse brain tissue and mouse colon tissue are negative control).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 18227-1-AP (CYP3A4 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 18227-1-AP (CYP3A4 Antibody) at dilution of 1:200 (under 40x lens).