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# Anti-Cytochrome P450 2U1 Antibody

Catalog # AP51148

## Product Information

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| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | Q7Z449 |
| **Reactivity** | Human, Mk |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 61987 |

## Additional Information

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| **Gene ID** | 113612 |
| **Other Names** | Cytochrome P450 2U1 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 2U1. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

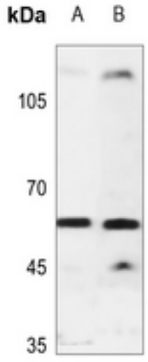
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| **Name** | CYP2U1 {ECO:0000303\|PubMed:14660610, ECO:0000312\|HGNC:HGNC:20582} |
| **Function** | A cytochrome P450 monooxygenase involved in the metabolism of arachidonic acid and its conjugates (PubMed:14660610, PubMed:24563460). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase) (PubMed:14660610, PubMed:24563460). Acts as an omega and omega-1 hydroxylase for arachidonic acid and possibly for other long chain fatty acids. May modulate the arachidonic acid signaling pathway and play a role in other fatty acid signaling processes (PubMed:14660610, PubMed:24563460). May down-regulate the biological activities of N-arachidonoyl-serotonin, an endocannabinoid that has anti-nociceptive effects through inhibition of fatty acid amide hydrolase FAAH, TRPV1 receptor and T-type calcium channels. Catalyzes C-2 oxidation of the indole ring of N-arachidonoyl-serotonin forming a less active product 2-oxo-N-arachidonoyl-serotonin (PubMed:24563460). |

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| **Cellular Location** | Endoplasmic reticulum membrane; Multi-pass membrane protein. Microsome membrane; Multi- pass membrane protein. Mitochondrion inner membrane; Multi-pass membrane protein |
| **Tissue Location** | Widely expressed with stronger expression in thymus, heart and cerebellum. |

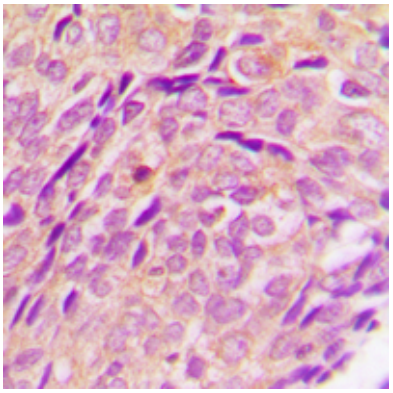
## References


Chuang S.S.,et al.J. Biol. Chem. 279:6305-6314(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Karlgren M.,et al.Biochem. Biophys. Res. Commun. 315:679-685(2004).
Choudhary D.,et al.Arch. Biochem. Biophys. 436:50-61(2005).
Tesson C.,et al.Am. J. Hum. Genet. 91:1051-1064(2012).

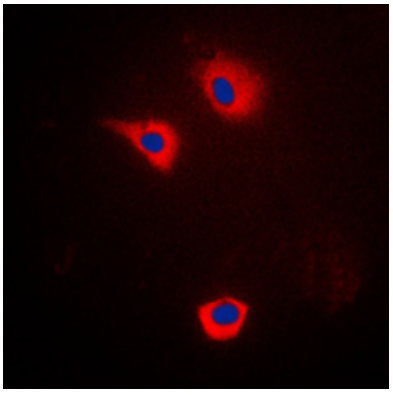

## Images




Western blot analysis of Cytochrome P450 2U1 expression in HEK293T (A), K562 (B) whole cell lysates. (Predicted band size: 61 kD; Observed band size: 62 kD)



Immunohistochemical analysis of Cytochrome P450 2U1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Cytochrome P450 2U1 staining in LOVO cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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