

## Product datasheet for **CF503805**

### Cytochrome P450 2A6 (CYP2A6) Mouse Monoclonal Antibody [Clone ID: OTI5F8]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI5F8
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:150, IF 1:100, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human CYP2A6(NP_000753) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	56.3 kDa
Gene Name:	Homo sapiens cytochrome P450 family 2 subfamily A member 6 (CYP2A6), mRNA.
Database Link:	<a href="#">NP_000753</a> <a href="#">Entrez Gene 1548 Human P11509</a>



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**Background:**

This gene, CYP2A6, encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by phenobarbital. The enzyme is known to hydroxylate coumarin, and also metabolizes nicotine, aflatoxin B1, nitrosamines, and some pharmaceuticals. Individuals with certain allelic variants are said to have a poor metabolizer phenotype, meaning they do not efficiently metabolize coumarin or nicotine. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. The gene was formerly referred to as CYP2A3; however, it has been renamed CYP2A6. [provided by RefSeq, Jul 2008]

**Synonyms:**

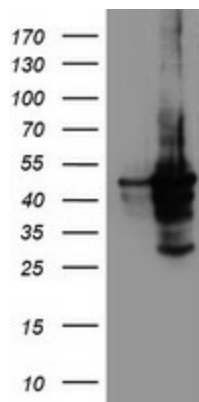
CPA6; CYP2A; CYP2A3; CYP11A6; P450C2A; P450PB

**Protein Families:**

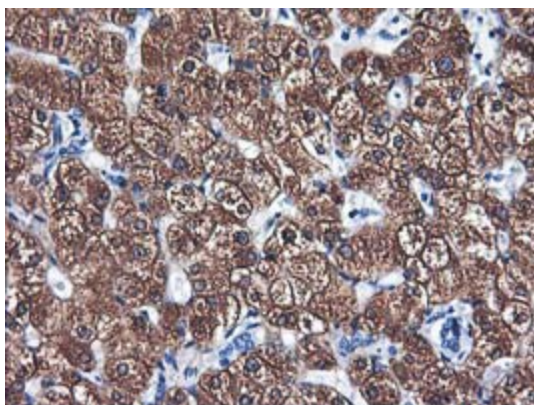
Druggable Genome, P450, Transmembrane

**Protein Pathways:**

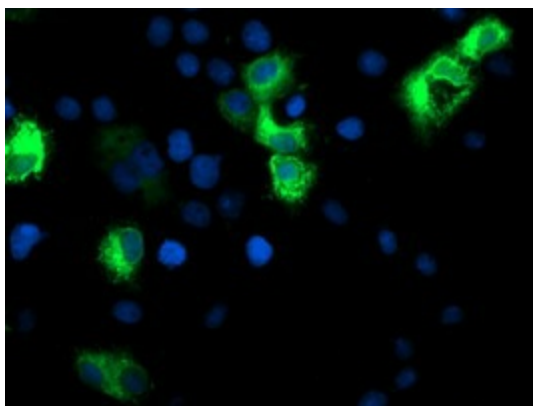
Caffeine metabolism, Drug metabolism - cytochrome P450, Drug metabolism - other enzymes, Metabolic pathways, Retinol metabolism

**Product images:**

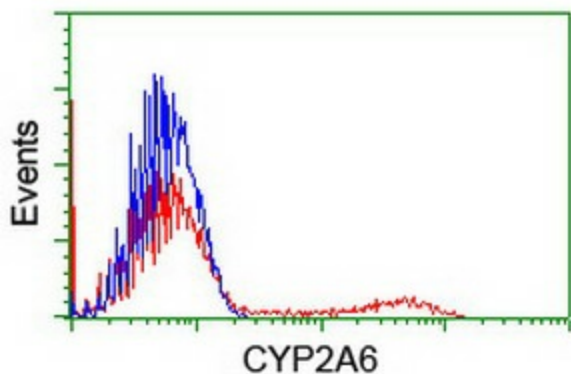
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CYP2A6 ([RC222995], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CYP2A6. Positive lysates [LY424530] (100ug) and [LC424530] (20ug) can be purchased separately from OriGene.



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-CYP2A6 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA503805])



Anti-CYP2A6 mouse monoclonal antibody ([TA503805]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CYP2A6 ([RC222995]).



HEK293T cells transfected with either [RC222995] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-CYP2A6 antibody ([TA503805]), and then analyzed by flow cytometry.