

## Product datasheet for UM500073CF

#### OriGene Technologies, Inc.

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### Cytochrome P450 1A2 (CYP1A2) Mouse Monoclonal Antibody [Clone ID: UMAB105]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: UMAB105
Applications: IF, IHC, WB
Recommended Dilution: IHC 1:100
Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

Immunogen: Full length human recombinant protein of human CYP1A2 (NP\_000752) 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: 58.2 kDa

**Gene Name:** cytochrome P450 family 1 subfamily A member 2

Database Link: NP 000752

Entrez Gene 1544 Human

P05177





**Background:** This gene 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. The protein encoded by this gene localizes to the endoplasmic reticulum and its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzyme's endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. Other xenobiotic substrates for this enzyme include caffeine, aflatoxin B1, and acetaminophen. The transcript from this gene contains four Alu sequences flanked by direct repeats in the 3' untranslated region. [provided by RefSeq, Jul 2008]

**Synonyms:** CP12; P3-450; P450(PA)

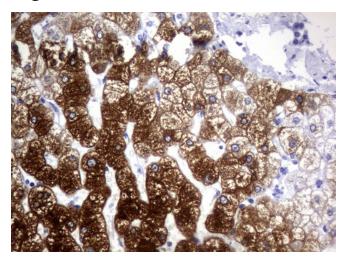
**Protein Families:** Druggable Genome, P450, Transmembrane

**Protein Pathways:** Caffeine metabolism, Drug metabolism - cytochrome P450, Linoleic acid metabolism,

Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism,

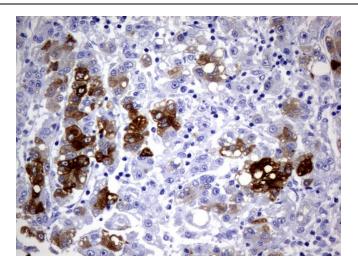
Tryptophan metabolism

# **Product images:**

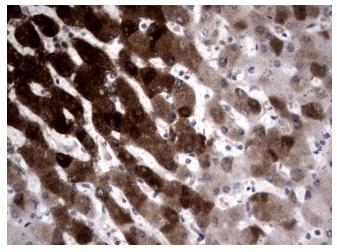


Immunohistochemical staining of paraffinembedded Human liver tissue using anti-CYP1A2 mouse monoclonal antibody. ([UM500073]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)

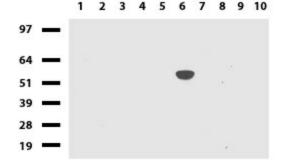




Immunohistochemical staining of paraffinembedded Carcinoma of Human liver tissue using anti-CYP1A2 mouse monoclonal antibody. ([UM500073]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)

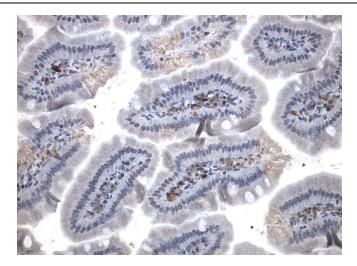


Immunohistochemical staining of paraffinembedded Human embryonic liver tissue using anti-CYP1A2 mouse monoclonal antibody. ([UM500073]; heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min)

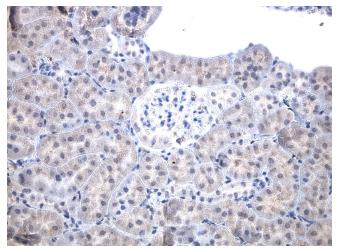


Western blot of human tissue lysates (15ug) from 10 different tissues (1: Testis, 2: Omentum, 3: Uterus, 4: Breast, 5: Brain, 6: Liver, 7: Ovary, 8: Thyroid, 9: Colon, 10: Spleen ). Diluation: 1:500.

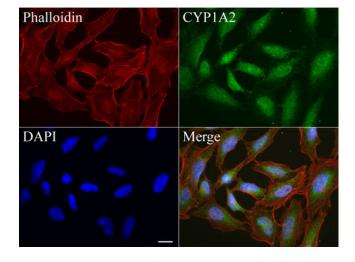




Immunohistochemical staining of paraffinembedded mouse small intestine tissue using mouse anti-CYP1A2 clone UMAB105 mouse monoclonal antibody. HIER TEE buffer ([B21-100]) (pH9) at 110C for 10 min, [UM500073] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Chromogen Kit.



Immunohistochemical staining of paraffinembedded mouse normal kidney tissue using mouse anti-CYP1A2 clone UMAB105 mouse monoclonal antibody. HIER TEE buffer ([B21-100]) (pH9) at 110C for 10 min, [UM500073] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Chromogen Kit.



Immunofluorescent staining of HeLa cells using anti-CYP1A2 mouse monoclonal antibody ([UM500073], green, 1:50). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue). Scale bar, 20µm.