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Product datasheet for CF501196

Cytochrome P450 1A2 (CYP1A2) Mouse Monoclonal Antibody [Clone ID: OTI8F1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI8F1
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, IF 1:100, FLOW 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
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:	Homo sapiens cytochrome P450 family 1 subfamily A member 2 (CYP1A2), mRNA.
Database Link:	NP_000752 Entrez Gene 1544 Human P05177

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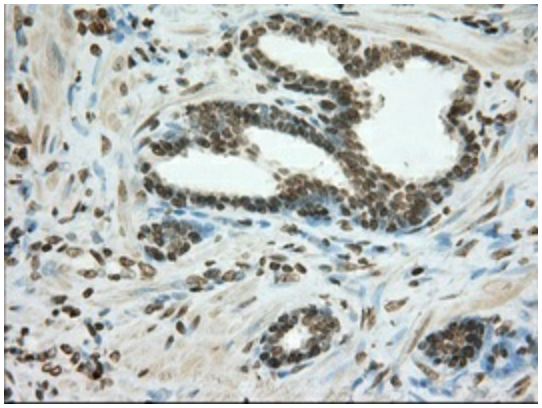
Background: This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. The protein encoded by this gene localizes to the endoplasmic 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.

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

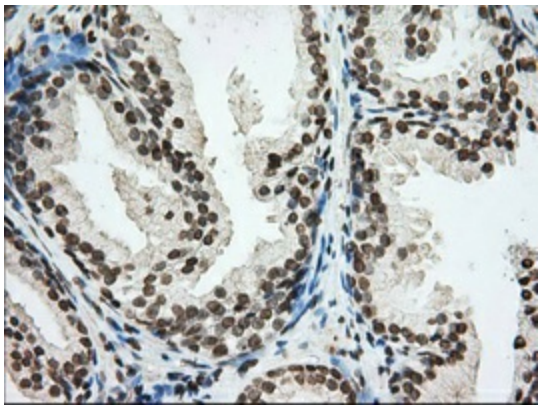
Protein Families: Druggable Genome, P450, Transmembrane

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 paraffin-embedded Carcinoma of Human prostate tissue using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)



Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)

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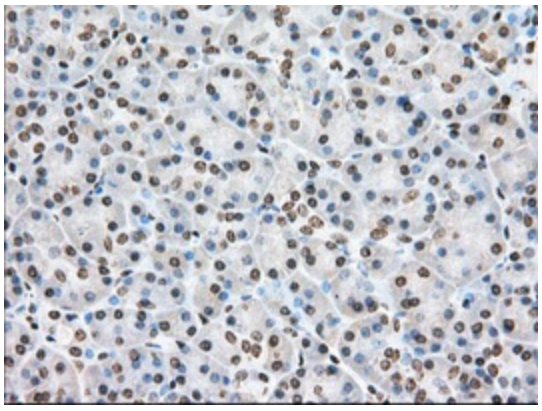
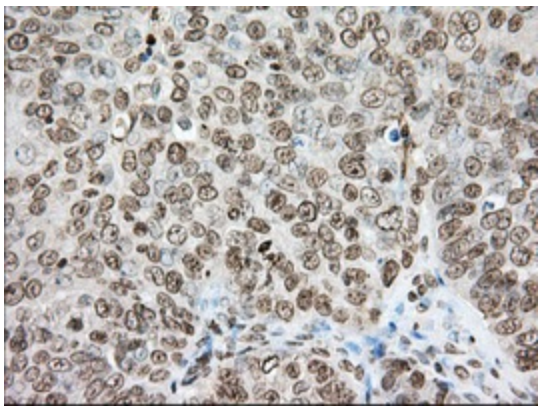
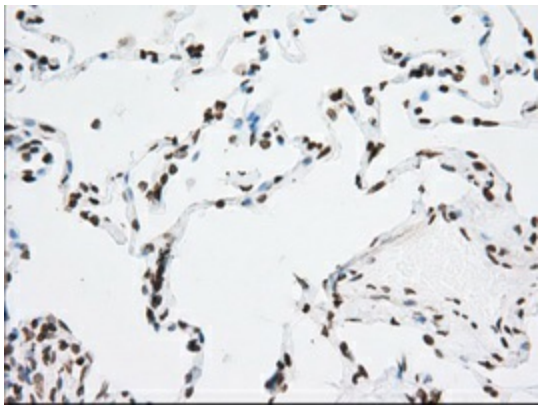


Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)



Immunohistochemical staining of paraffin-embedded Human lung tissue within the normal limits using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)

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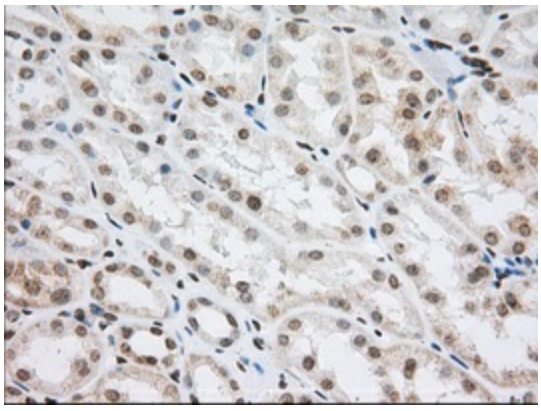
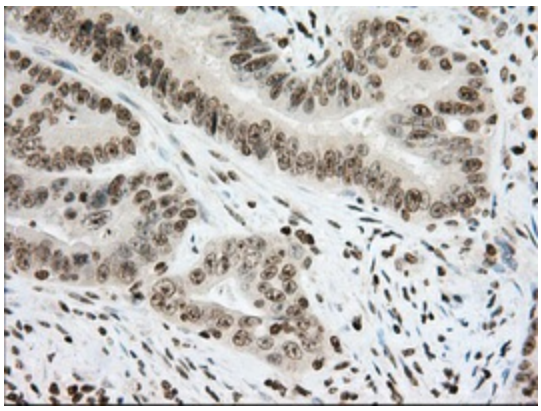
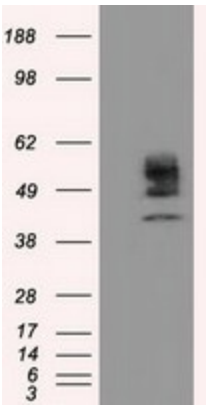


Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CYP1A2 ([RC221636], 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-CYP1A2. Positive lysates [LY424529] (100ug) and [LC424529] (20ug) can be purchased separately from OriGene.

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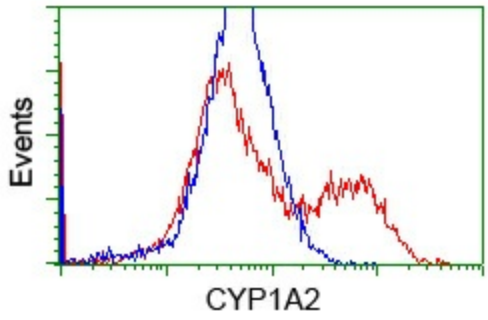
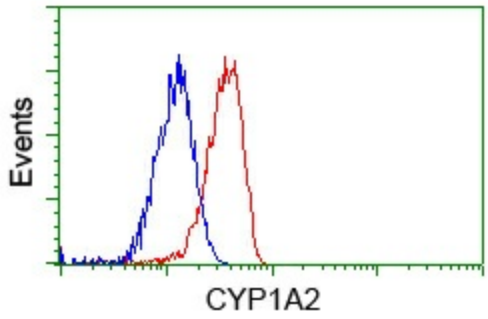
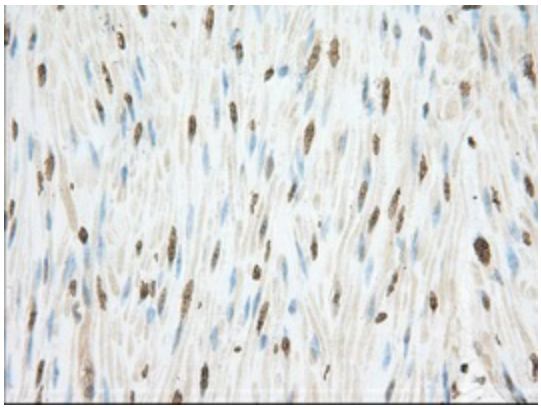


HEK293T cells transfected with either [RC221636] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-CYP1A2 antibody ([TA501196]), and then analyzed by flow cytometry.



Flow cytometric Analysis of Jurkat cells, using anti-CYP1A2 antibody ([TA501196]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).



Immunohistochemical staining of paraffin-embedded Human colon tissue within the normal limits using anti-CYP1A2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501196], Dilution 1:50)

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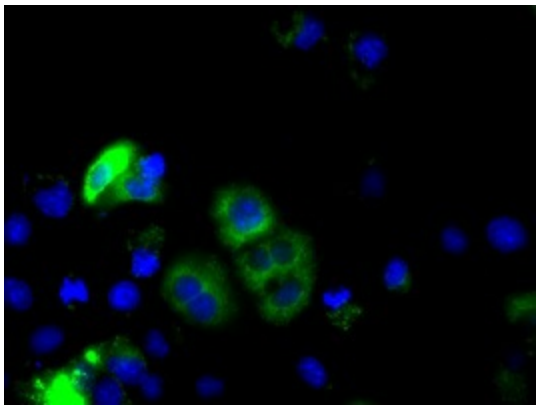

Anti-CYP1A2 mouse monoclonal antibody ([TA501196]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY CYP1A2 ([RC221636]).

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