CYP1A2-Specific Polyclonal ANTIBODY

Catalog Number: 19936-1-AP

**Basic Information**
- **Catalog Number:** 19936-1-AP
- **Size:** 42 μg/150 μl
- **Source:** Rabbit
- **Isotype:** IgG
- **Purification Method:** Antigen affinity purification
- **Immunogen Catalog Number:**
- **GenBank Accession Number:** NM_000761
- **GeneID (NCBI):** 1544
- **Full Name:** cytochrome P450, family 1, subfamily A, polypeptide 2
- **Calculated MW:** 58 kDa
- **Observed MW:** 58 kDa

**Recommended Dilutions:**
- **WB:** 1:500-1:2000
- **IP:** 0.5-4.0 μg for IP and 1:200-1:1000 for WB
- **IHC:** 1:100-1:400
- **IF:** 1:10-1:100

**Applications**
- **Tested Applications:** FC, IF, IHC, IP, WB, ELISA
- **Cited Applications:** IF, WB

**Species Specificity:**
- **human, mouse, rat**

**Cited Species:**
- human, mouse

**Note:** suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

**Background Information**
CYP1A2, also named as CYP1A2, P3-450 and P450PA, belongs to the cytochrome P450 family. Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, CYP1A2 is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Most active of CYP1A2 is in catalyzing 2-hydroxylation. Caffeine is metabolized primarily by cytochrome CYP1A2 in the liver through an initial N3-demethylation. It also acts in the metabolism of aflatoxin B1 and acetaminophen. CYP1A2 participates in the bioactivation of carcinogenic aromatic and heterocyclic amines. It catalyzes the reaction: RH + reduced flavoprotein + O2 = ROH + oxidized flavoprotein + H2O.

The antibody is specific to CYP1A2.

**Notable Publications**

<table>
<thead>
<tr>
<th>Author</th>
<th>PubMed ID</th>
<th>Journal</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linjie Lv</td>
<td>25203445</td>
<td>Hepatology</td>
<td>IF</td>
</tr>
<tr>
<td>Ashley A Untereiner</td>
<td>29061341</td>
<td>Biochem Pharmacol</td>
<td>WB</td>
</tr>
<tr>
<td>Bin Li</td>
<td>29806627</td>
<td>Exp-Anim</td>
<td>WB</td>
</tr>
</tbody>
</table>

**Storage**
- **Storage:** Store at -20°C. Stable for one year after shipment.
- **Storage Buffer:** PBS with 0.05% sodium azide and 50% glycerol pH 7.3.
- **Aliquoting is unnecessary for -20°C storage**

For technical support and original validation data for this product please contact:
- T 1 (888) 4PTGLAB (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.
mouse liver tissue were subjected to SDS-PAGE followed by western blot with 19936-1-AP (CYP1A2-specific antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.

Immunofluorescent analysis of HeLa cells, using CYP1A2 antibody 19936-1-AP at 1:25 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).

IP Result of anti-CYP1A2-Specific (IP: 19936-1-AP; 4ug; Detection: 19936-1-AP 1:300) with mouse liver tissue lysate 400ug.

Immunohistochemistry of paraffin-embedded human liver tissue slide using 19936-1-AP (CYP1A2-specific Antibody) at dilution of 1:200 (under 40x lens).

1X10^6 HeLa cells were stained with 0.5ug CYP1A2-Specific antibody (19936-1-AP, red) and control antibody (blue). Fixed with 4% PFA blocked with 3% BSA (30 min). FITC-Goat anti-Rabbit IgG with dilution 1:100.