

Datasheet for 600-401-HB7

Cytochrome P450 Antibody

Overview

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| Description: | Anti-Cytochrome P450 (RABBIT) Antibody - 600-401-HB7 |
| Item No.: | 600-401-HB7 |
| Size: | 100 µg |
| Applications: | ELISA, IF, IHC, Multiplex, WB |
| Reactivity: | Human, Rat |
| Host Species: | Rabbit |

Product Details

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|----------------------|--|
| Background: | Cytochrome p450 belongs to an enzyme superfamily that catalyzes many reactions such as the synthesis of cholesterol, lipids, steroids by oxidizing the compounds and plays a role in drug metabolism. The protein has been known to be stimulated by cigarette smoke. On-going studies link the cytochrome p450 protein with lung cancer. In the liver microsome, it is part of the NADPH-dependent electron transport pathway. The protein has been found expressed in the lung, lymphocytes and placenta. Anti-Cytochrome p450 antibody is useful for researchers interested in cancer research and enzyme research. |
| Synonyms: | Rabbit Anti-Cytochrome p450 Antibody, Rabbit Anti-CYP1A1 Antibody, CYP1A1, Cytochrome P450 form 6, Cytochrome P450-C, Cytochrome P450-P1 |
| Host Species: | Rabbit |
| Clonality: | Polyclonal |
| Format: | IgG |

Target Details

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|------------------------|---|
| Gene Name: | CYP1A1 |
| Reactivity: | Human, Rat |
| Immunogen Type: | Conjugated Peptide |
| Immunogen: | Anti-Cytochrome p450 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal portion of human cytochrome p450 conjugated to Keyhole Limpet Hemocyanin (KLH). |

Purity/Specificity: This affinity purified antibody is directed against human cytochrome p450. This product was affinity purified from monospecific antiserum by immunoaffinity purification. Blast analysis the immunogen sequence shows 83.3% identity with mouse, rat, hamster, and monkey.

Relevant Links:

- [UniProtKB - P04798](#)
- [NCBI - NP_000490.1](#)
- [GenelD - 1543](#)

Application Details

Tested Applications: ELISA, IF, IHC, Multiplex, WB

Application Note: Anti-Cytochrome p450 has been tested in ELISA, Western Blot, Immunofluorescence and Immunohistochemistry. Expect a band at ~58kda in western blot using appropriate lysates. Positive controls used include an overexpressing lysate and PC-12 at 1µg/mL for WB; human kidney and/or lung for IHC; HepG2 for IF at 15 µg/mL.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 5.0 ug/ml

IF: 15 ug/ml

IHC: 1:100 - 1:200

WB: 1:1000

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.0 mg/ml by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

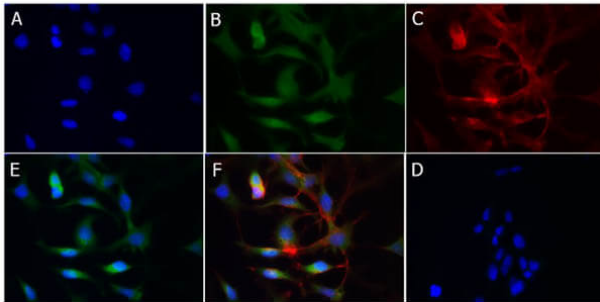
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

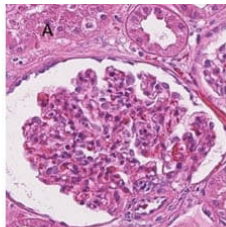
Expiration: Expiration date is one (1) year from date of receipt.

Images

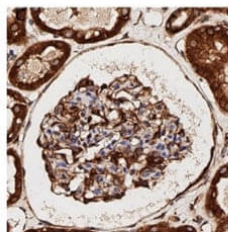
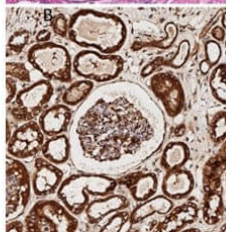


Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-Cytochrome p450 Antibody. Cell Line: HepG2. Fixation: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Rabbit Anti-Cytochrome p450 Antibody at 15µg/mL overnight at 4°C. Secondary Antibody: Donkey Anti-Rabbit DyLight™ 488 Conjugated Antibody (p/n 611-741-127) at 5µg/mL for 1hr at RT. A: Nuclear counter stain: DAPI. B: Anti-Cytochrome p450 and Anti-Rabbit DyLight™ 488. C: Actin- Phalloidin555. D: Secondary Only. E: Merge A+B. F: Merge A+B+C.

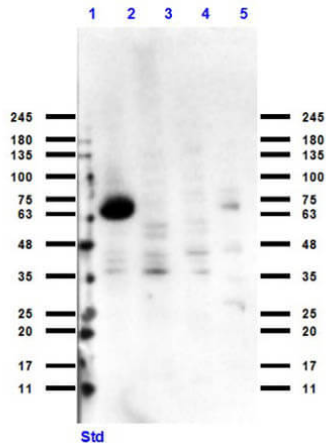


A. Human kidney H&E.
 B. Cytochrome P450 in kidney (20X), 1:100
 C. Cytochrome P450 in kidney (40X), 1:100



Immunohistochemistry

Immunohistochemistry of Rabbit Anti-Cytochrome p450 Antibody. Tissue: Human Kidney. Antigen Retrieval: HIER using Citrate Buffer for 20 min. Primary Antibody: Rabbit Anti-Cytochrome p450 at 1:100 for 30 min at RT. Secondary Antibody: Goat Anti-Rabbit HRP conjugated antibody. Staining: DAB. Counterstain: Hematoxylin.

**Western Blot**

Western Blot of Rabbit Anti-Cytochrome p450 Antibody.

Lane 1: Opal Pre-Stained Molecular Weight Marker (p/n MB-210-0500). Lane 2: CYP1A1 Over Expressing Lysate. Lane 3: HEK239T Cell Lysate (p/n W09-001-GX5). Lane 4: K562 Cell Lysate (p/n W09-001-GJ7). Lane 5: PC-12 Cell Lysate (p/n W12-001-GL9). Load: 10-35µg/lane. Primary Antibody: Rabbit Anti-Cytochrome p450 Antibody at 1:1000 overnight at 4°C. Secondary Antibody: Goat Anti-Rabbit HRP conjugated Antibody (p/n 611-103-122) at 1:70,000 at RT for 2hrs. Blocking buffer: BlockOut (p/n MB-073). Expect: ~58kDa.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.