

DATASHEET

Cytochrome P450 17A1 Rabbit Polyclonal Antibody

CAT. NO. APA06891

KEY FEATURES

| | | | |
|---------------|---|---------------|---------------------|
| Target | Cytochrome P450 17A1 | Source / Host | Rabbit |
| Reactivity | Human, Mouse, Rat | Clonality | Polyclonal |
| Applications | WB, IHC, IF/ICC | Conjugation | Unconjugated |
| Form / Buffer | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. | | Storage at -20°C |

BACKGROUND

A cytochrome P450 monooxygenase involved in corticoid and androgen biosynthesis . Catalyzes 17-alpha hydroxylation of C21 steroids, which is common for both pathways. A second oxidative step, required only for androgen synthesis, involves an acyl-carbon cleavage. The 17-alpha hydroxy intermediates, as part of adrenal glucocorticoids biosynthesis pathway, are precursors of cortisol (Probable) . Hydroxylates steroid hormones, pregnenolone and progesterone to form 17-alpha hydroxy metabolites, followed by the cleavage of the C17-C20 bond to form C19 steroids, dehydroepiandrosterone (DHEA) and androstenedione . Has 16-alpha hydroxylase activity. Catalyzes 16-alpha hydroxylation of 17-alpha hydroxy pregnenolone, followed by the cleavage of the C17-C20 bond to form 16-alpha-hydroxy DHEA .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

| | |
|--------|----------------|
| WB | 1:500 - 1:1000 |
| IHC | 1:50 - 1:100 |
| IF/ICC | 1:50 - 1:200 |

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

| | |
|-------------------|---|
| Description | Rabbit polyclonal antibody to Cytochrome P450 17A1 |
| Specificity | Recognizes endogenous levels of Cytochrome P450 17A1 protein. |
| Antibody Type | Primary antibody |
| Immunogen | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 17A1. The exact sequence is proprietary. |
| Purification | The antibody was purified by immunogen affinity chromatography. |
| Molecular Weight | Predicted: 57 kD; Observed: 55 kD |
| Form/Buffer | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| Alternative Names | CYP17; S17AH; Steroid 17-alpha-hydroxylase/17,20 lyase; 17-alpha-hydroxyprogesterone aldolase; CYPXVII; Cytochrome P450 17A1; Cytochrome P450-C17; Cytochrome P450c17; Steroid 17-alpha-monooxygenase |
| Gene Symbol | CYP17A1 |
| Entrez Gene | 1586(Human); 13074(Mouse); 25146(Rat) |
| SwissProt | P05093(Human); P27786(Mouse); P11715(Rat) |

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

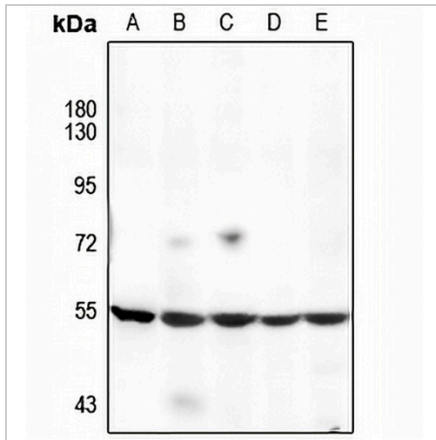
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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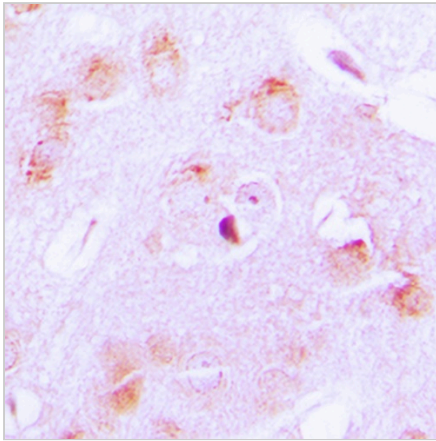
Cytochrome P450 17A1 Rabbit Polyclonal Antibody

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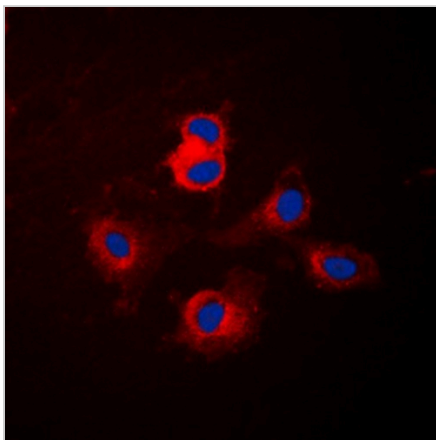
DATA



Western blot analysis of Cytochrome P450 17A1 expression in PC3 (A), U87MG (B), A2780 (C), PC12 (D), AML12 (E) whole cell lysates. (Predicted band size: 57 kDa; Observed band size: 55 kDa)



Immunohistochemical analysis of Cytochrome P450 17A1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Cytochrome P450 17A1 staining in NIH3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.