

For Research Use Only

CYP17A1 Polyclonal antibody

Catalog Number: 14447-1-AP

48 Publications



Basic Information

Catalog Number:

14447-1-AP

Size:

150ul, Concentration: 700 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG5899

GenBank Accession Number:

BC062997

GeneID (NCBI):

1586

UNIPROT ID:

P05093

Full Name:

cytochrome P450, family 17, subfamily A, polypeptide 1

Calculated MW:

57 kDa

Observed MW:

50-57 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:2000-1:12000

IHC: 1:100-1:400

IF/ICC: 1:20-1:200

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, pig

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

Positive Controls:

WB: A549 cells, Jurkat cells, rat brain tissue, HeLa cells, HepG2 cells, mouse adrenal gland tissue, mouse brain tissue

IHC: human prostate cancer tissue,

IF/ICC: HepG2 cells,

FC (Intra): HepG2 cells,

Background Information

The human cytochrome P450c17 enzyme is encoded by the CYP17A1 gene. It is the qualitative regulator of steroidogenesis in the human adrenals. In its absence, aldosterone is produced in the human adrenal zona glomerulosa. The CYP17A1 gene is expressed in the adrenal cortex and the gonads but not in the placenta (PMID:19403566). Although CYP17A1 has been shown to be a 50-kDa protein, the presence of a lower molecular mass (30 kDa) immunoreactive form in rat Leydig cells was previously shown and it is either a degradation product or a truncated form of the 50 kDa enzyme (PMID:15761033). Defects in CYP17A1 are the cause of adrenal hyperplasia type 5 (AH5) and CYP17A1 is an important target for inhibition in the treatment of prostate cancer (PMID 27505042, PMID 27505042).

Notable Publications

Author	Pubmed ID	Journal	Application
Yanyan Zhao	36152347	Biochem Biophys Res Commun	IHC
Yan Peng	33109277	Biol Res	WB
Jun Li	36338128	Front Bioeng Biotechnol	WB,IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

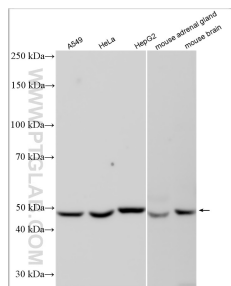
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

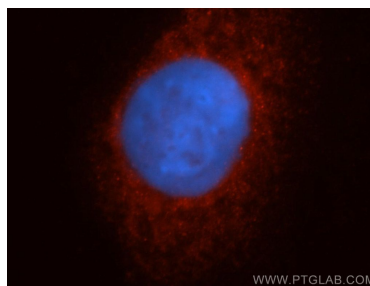
E: proteintech@ptglab.com
W: ptglab.com

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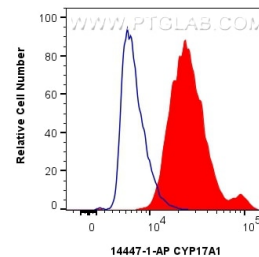
Selected Validation Data



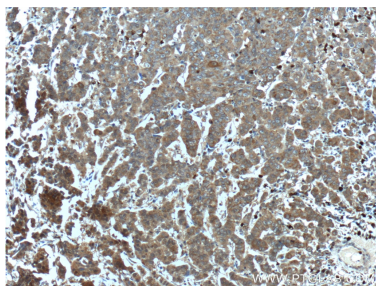
Various lysates were subjected to SDS PAGE followed by western blot with 14447-1-AP (CYP17A1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



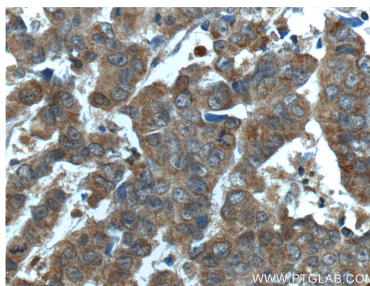
Immunofluorescent analysis of HepG2 cells, using CYP17A1 antibody 14447-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



1×10^6 HepG2 cells were intracellularly stained with 0.4 μ g CYP17A1 Polyclonal antibody (14447-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.4 μ g Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 14447-1-AP (CYP17A1 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 14447-1-AP (CYP17A1 Antibody) at dilution of 1:200 (under 40x lens).