

CYP17 / CYP17A1 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS15354**Specification**

CYP17 / CYP17A1 Antibody (Internal) - Product Information

Application	IHC
Primary Accession	P05093
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	57kDa KDa

CYP17 / CYP17A1 Antibody (Internal) - Additional Information**Gene ID** 1586**Other Names**

Steroid 17-alpha-hydroxylase/17, 20 lyase, 1.14.99.9, 4.1.2.30, 17-alpha-hydroxyprogesterone aldolase, CYPXVII, Cytochrome P450 17A1, Cytochrome P450-C17, Cytochrome P450c17, Steroid 17-alpha-monooxygenase, CYP17A1, CYP17, S17AH

Target/Specificity

Human CYP17A1.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

CYP17 / CYP17A1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP17 / CYP17A1 Antibody (Internal) - Protein Information**Name** CYP17A1 {ECO:0000303|PubMed:19793597, ECO:0000312|HGNC:HGNC:2593}**Function**

A cytochrome P450 monooxygenase involved in corticoid and androgen biosynthesis (PubMed:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938). 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 (PubMed:9452426, PubMed:25301938) (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 (PubMed:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938, PubMed:36640554). 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 (PubMed:36640554). Also 16-alpha hydroxylates androgens, relevant for estriol synthesis (PubMed:27339894, PubMed:25301938). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase) (PubMed:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938).

Cellular Location

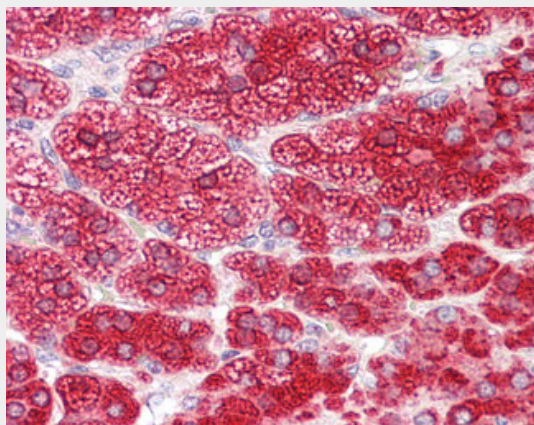
Endoplasmic reticulum membrane. Microsome membrane

CYP17 / CYP17A1 Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CYP17 / CYP17A1 Antibody (Internal) - Images



Anti-CYP17 / CYP17A1 antibody IHC of human adrenal.

CYP17 / CYP17A1 Antibody (Internal) - Background

Conversion of pregnenolone and progesterone to their 17- alpha-hydroxylated products and subsequently to dehydroepiandrosterone (DHEA) and androstenedione. Catalyzes both the 17-alpha-hydroxylation and the 17,20-lyase reaction. Involved in sexual development during fetal life and at puberty.

CYP17 / CYP17A1 Antibody (Internal) - References

Chung B.-C.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:407-411(1987).
Picado-Leonard J.,et al.DNA 6:439-448(1987).
Bradshaw K.D.,et al.Mol. Endocrinol. 1:348-354(1987).
Brentano S.T.,et al.Mol. Endocrinol. 4:1972-1979(1990).
Kagimoto M.,et al.Mol. Endocrinol. 2:564-570(1988).