

CYP19A1 Polyclonal Antibody
Catalog # AP69373**Specification****CYP19A1 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	P11511
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

CYP19A1 Polyclonal Antibody - Additional Information**Gene ID** 1588**Other Names**

CYP19A1; ARO1; CYAR; CYP19; Cytochrome P450 19A1; Aromatase; CYPXIX; Cytochrome P-450AROM; Estrogen synthase

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

CYP19A1 Polyclonal Antibody - Protein Information**Name** CYP19A1 {ECO:0000303|PubMed:24705274, ECO:0000312|HGNC:HGNC:2594}**Function**

A cytochrome P450 monooxygenase that catalyzes the conversion of C19 androgens, androst-4-ene-3,17-dione (androstenedione) and testosterone to the C18 estrogens, estrone and estradiol, respectively (PubMed: [27702664](http://www.uniprot.org/citations/27702664)), PubMed: [2848247](http://www.uniprot.org/citations/2848247)). Catalyzes three successive oxidations of C19 androgens: two conventional oxidations at C19 yielding 19-hydroxy and 19-oxo/19-aldehyde derivatives, followed by a third oxidative aromatization step that involves C1-beta hydrogen abstraction combined with cleavage of the C10-C19 bond to yield a phenolic A ring and formic acid (PubMed: [20385561](http://www.uniprot.org/citations/20385561)). Alternatively, the third oxidative reaction yields a 19-norsteroid and formic acid. Converts dihydrotestosterone to delta1,10-dehydro 19- nordihydrotestosterone and may play a role in homeostasis of this potent androgen (PubMed: [22773874](http://www.uniprot.org/citations/22773874)). Also displays 2-hydroxylase activity toward estrone (PubMed: [22773874](http://www.uniprot.org/citations/22773874)).

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:20385561, PubMed:22773874).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Microsome membrane; Multi-pass membrane protein

Tissue Location

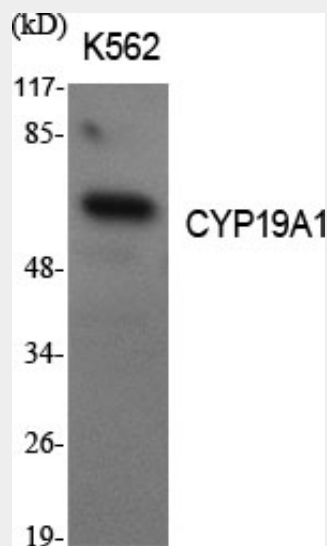
Widely expressed, including in adult and fetal brain, placenta, skin fibroblasts, adipose tissue and gonads

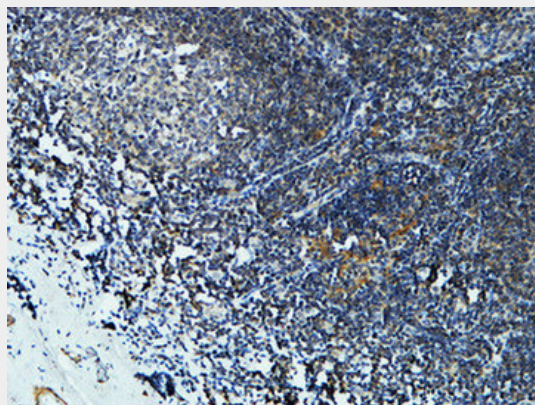
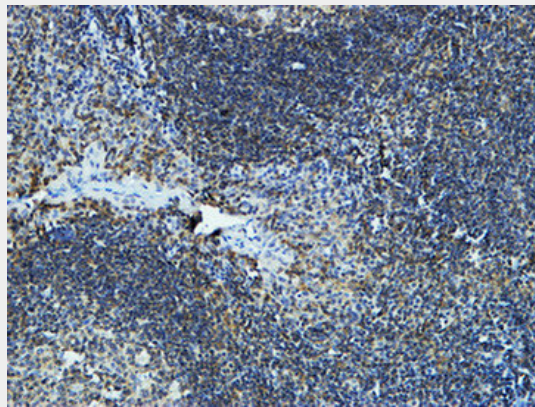
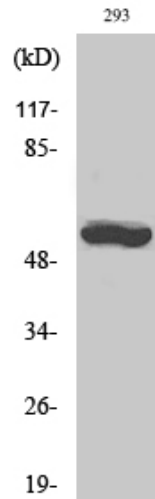
CYP19A1 Polyclonal Antibody - Protocols

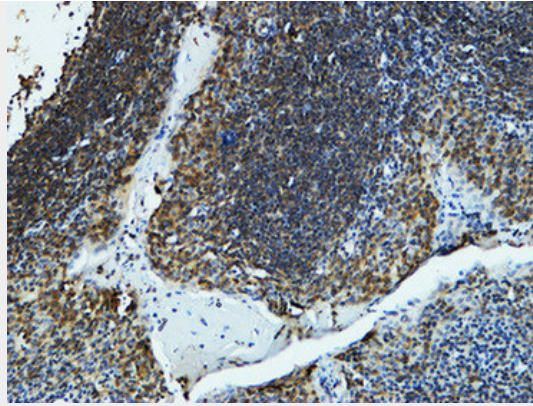
Provided below are standard protocols that you may find useful for product applications.

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

CYP19A1 Polyclonal Antibody - Images







CYP19A1 Polyclonal Antibody - Background

Catalyzes the formation of aromatic C18 estrogens from C19 androgens.