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CYP19A1 Polyclonal Antibody
Catalog # AP69373

Specification

CYP19A1 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IF**
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.
IHC-P~~N/A
IF~~1:50~200

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

Storage Conditions
-20℃

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, PubMed: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). 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:<a href="http://www.uniprot.org/citations/22773874"

target="_blank">22773874). Also displays 2-hydroxylase activity toward estrone (PubMed: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

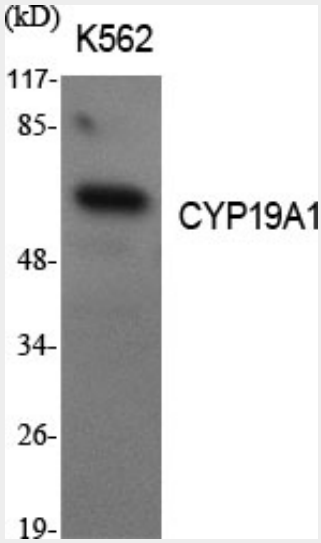
Tissue Location
Widely expressed, including in adult and fetal brain, placenta, skin fibroblasts, adipose tissue and gonads

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 Cytomety
- Cell Culture

CYP19A1 Polyclonal Antibody - Images



Western Blot analysis of various cells using CYP19A1 Polyclonal Antibody diluted at 1□1000

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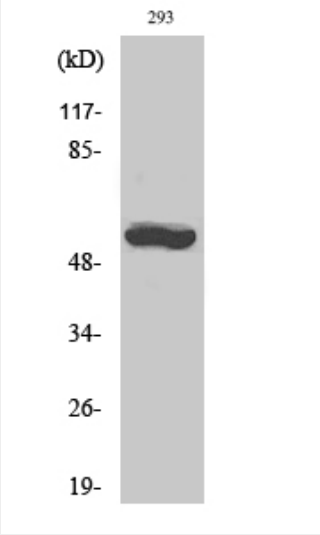
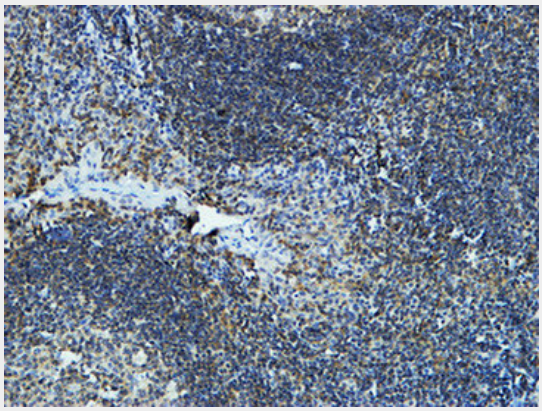
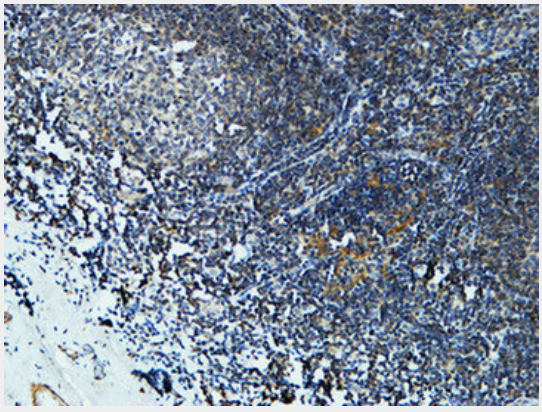


Western Blot analysis of 293 cells using CYP19A1 Polyclonal Antibody diluted at 1□1000



Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:100(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



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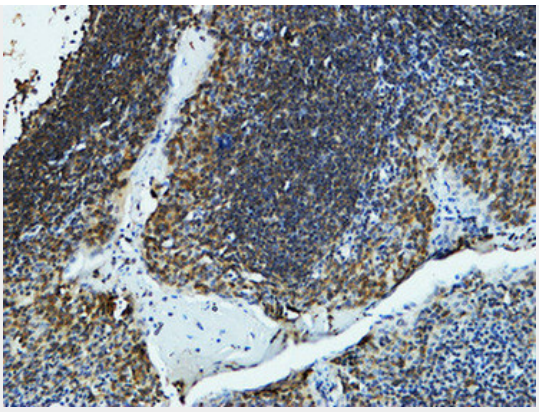

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CYP19A1 Polyclonal Antibody - Background

Catalyzes the formation of aromatic C18 estrogens from C19 androgens.