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Anti-Aromatase Antibody
Catalog # ABO10808

Specification

Anti-Aromatase Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P11511
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Aromatase(CYP19A1) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Aromatase Antibody - Additional Information

Gene ID 1588

Other Names
Aromatase, 1.14.14.14, CYPXIX, Cytochrome P-450AROM, Cytochrome P450 19A1, Estrogen synthase, CYP19A1, ARO1, CYAR, CYP19

Calculated MW
57883 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Membrane; Peripheral membrane protein.

Tissue Specificity
Brain, placenta and gonads. .

Protein Name
Aromatase

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human Aromatase(485-503aa KNMLEMIFTPRNSDRCLEH).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the cytochrome P450 family.

Anti-Aromatase 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: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

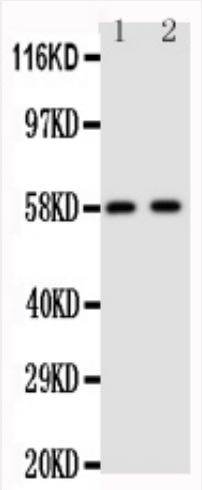
Anti-Aromatase Antibody - Protocols

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

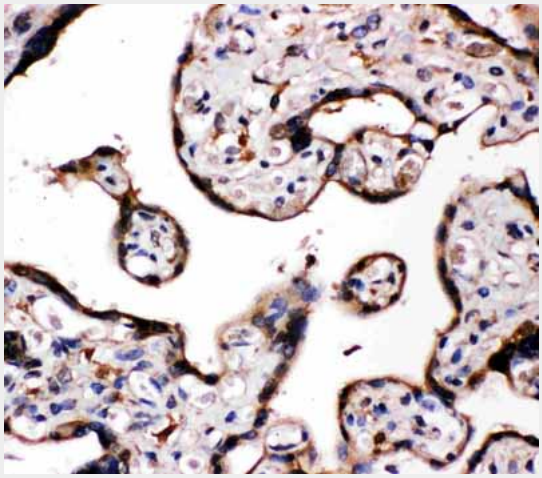
- Western Blot
- Blocking Peptides

- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Aromatase Antibody - Images



Anti-Aromatase antibody, ABO10808, Western blottingLane 1: Human Placenta Tissue LysateLane 2: Human Placenta Tissue Lysate



Anti-Aromatase antibody, ABO10808, IHC(P)IHC(P): Human Placenta Tissue

Anti-Aromatase Antibody - Background

Aromatase is an enzyme responsible for a key step in the biosynthesis of estrogens. It is a member of the cytochrome P450 superfamily, which are monooxygenases that catalyze many reactions involved in steroidogenesis. In particular, aromatase is responsible for the aromatization of androgens into estrogens. The CYP19 gene spans at least 70 kb of genomic DNA and contains 10 exons. By in situ hybridization, the ARO gene is mapped to 15q21.1. The aromatase enzyme can be found in many tissues including gonads, brain, adipose tissue, placenta, blood vessels, skin, bone, and endometrium, as well as in tissue of endometriosis, uterine fibroids, breast cancer, and endometrial cancer. It is an important factor in sexual development. Some bodybuilders taking steroids also take antiaromatase supplements to prevent excess testosterone conversion into

estrogens, which can cause gynecomastia.