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SM2222PS Monoclonal Antibody to Aromatase (376-390) - Supernatant

Alternate names: ARO1, CYAR, CYP19, CYP19A1, CYPXIX, Cytochrome P450 19A1, Estrogen synthetase, P450AROM

Quantity: 0.2 ml

Background: Aromatase is a key enzyme in steroidogenesis and plays an important role in sexual differentiation, oestrogen biosynthesis, fertility and carcinogenesis. It is highly conserved amongst mammals, and is highly expressed in placental tissue. Many environmental chemicals may influence aromatase activity and thereby disrupt endocrine function.

Uniprot ID: P11511

NCBI: 9606

GeneID: 1588

Host / Isotype: Mouse / IgG2a

Clone: H4

Immunogen: Synthetic peptide corresponding to amino acids 376-390 of Human Aromatase.

Format: **State:** Liquid 10 x Concentrated Tissue Culture Supernatant
Preservatives: 0.09% Sodium Azide

Applications: **Immunocytochemistry** (See Ref. 15; Oki 2012).
Immunohistochemistry on Paraffin Sections: 1/100.
Heat induced antigen retrieval with citrat buffer, pH 6.2 using a pressure cooker was preformed. Sections were blocking using a commercially available casein solution. Signal was generated using a commercially available polymer HRP detection system and DAB.
This antibody has been described to work on paraffin sections without antigen retrieval using heat treatment.
Recommended Positive Control Tissue: Human placenta (See Ref. 11; Jeong 2010).
Western Blot: 1/250. Detects a band of approximately 55 kD in human placental extracts (See Ref. 4; Sirianni 2009).
P450 aromatase is highly expressed in placental tissue. For tissues where there may be low expression of P450 aromatase, the use of microsomal extracts may improve the staining for Western blots using this antibody (See Ref. 1; Turner 2002).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody SM2222P (Clone H4) recognizes a conserved epitope within Cytochrome P450 Aromatase (P450 arom). P450 arom is highly expressed in placental tissue. For tissues where there may be low expression of P450 arom, the use of microsomal extracts may improve the staining for Western blots using Mouse anti Human Cytochrome P450 aromatase antibody, clone H4 (Turner *et al.* 2002).
Negative Species: Giraffe.
Species: Human, Rat, Marmoset, Chicken, Mouse, Pig, Baboon, Bovine, Horse, Great fruit eating bat, Rabbit, Sheep, Collared peccary, Minke whale, Bryde's whale, Sei whale and Goat.
Other species not tested.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

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2017. https://doi.org/10.1016/j.jsbmb.2017.08.003

General Readings:

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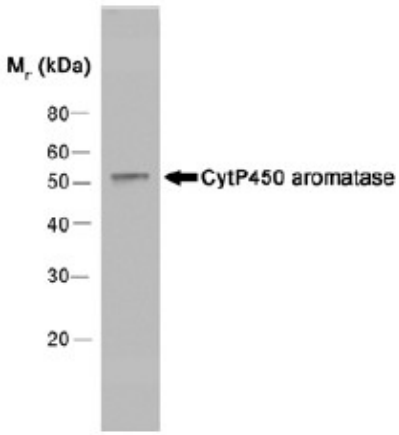
Pictures:

Western blot analysis of Human placenta extract probed with anti Human Cytochrome P450 Aromatase Antibody Cat.-No SM2222P/PS (Clone H4) followed by F(ab')2 Rabbit anti Mouse IgG-HRP (Cat.-No SP1012HRP).



Staining of FFPE Human placenta with Aromatase (10x and 40x) Antibody Cat.-No SM2222PS (Clone H4) at 1/100 dilution. Antibody positive in the cell membrane of epithelial cells.