

## Datasheet: MCA2077S

<b>Description:</b>	MOUSE ANTI HUMAN CYTOCHROME P450 AROMATASE
<b>Specificity:</b>	CYTOCHROME P450 AROMATASE
<b>Format:</b>	10 X Concentrate
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	H4
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	1 ml

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/250
Immunofluorescence	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

### Target Species

Human

### Species Cross Reactivity

Reacts with: Rat, Marmoset, Chicken, Mouse, Pig, Baboon, Bovine, Horse, Great fruit eating bat, Rabbit, Sheep, Collared peccary, Goat, Minke whale, Bryde's whale, Sei whale  
Does not react with: Giraffe  
**N.B.** Antibody reactivity and working conditions may vary between species.

### Product Form

Concentrated Tissue Culture Supernatant - liquid

### Preservative Stabilisers

0.1% Sodium Azide

### Immunogen

Synthetic peptide corresponding to amino acids 376 - 390 of human aromatase.

### External Database Links

#### UniProt:

[P11511](#)

[Related reagents](#)

#### Entrez Gene:

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<b>Synonyms</b>	ARO1, CYAR, CYP19
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<b>Fusion Partners</b>	Spleen cells from immunised Balb/c were fused with with cells of the mouse SP20 myeloma cell line.
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<b>Specificity</b>	<p><b>Mouse anti Human Cytochrome P450 aromatase antibody, clone H4</b> recognizes a conserved epitope within cytochrome P450 aromatase (P450 arom). P450 arom plays an important role in estrogen biosynthesis and is highly conserved amongst mammals.</p> <p>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 (<a href="#">Turner et al. 2002</a>).</p>
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<b>Histology Positive Control Tissue</b>	Human placenta
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<b>Western Blotting</b>	Mouse anti Human p450 Aromatase antibody, clone H4 detects a band of approximately 55 kDa in human placental extracts.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Lu, Y. <i>et al.</i> (2007) Ubiquitination and proteasome-mediated degradation of BRCA1 and BARD1 during steroidogenesis in human ovarian granulosa cells. <a href="#">Mol Endocrinol. 21 (3): 651-63.</a></li><li>2. Lanzino, M. <i>et al.</i> (2013) DAX-1, as an androgen-target gene, inhibits aromatase expression: a novel mechanism blocking estrogen-dependent breast cancer cell proliferation. <a href="#">Cell Death Dis. 4: e724.</a></li><li>3. Zhao, D. <i>et al.</i> (2010) Somatic sex identity is cell autonomous in the chicken. <a href="#">Nature. 464: 237-42.</a></li><li>4. Sirianni, R. <i>et al.</i> (2009) Inhibition of cyclooxygenase-2 down-regulates aromatase activity and decreases proliferation of Leydig tumor cells. <a href="#">J Biol Chem. 284: 28905-16.</a></li><li>5. Carpino, A. <i>et al.</i> (2004) Aromatase immunolocalization in human ductuli efferentes and proximal ductus epididymis. <a href="#">J Anat. 204: 217-20.</a></li><li>6. Catalano, S. <i>et al.</i> (2010) Farnesoid X receptor, through the binding with steroidogenic factor 1-responsive element, inhibits aromatase expression in tumor Leydig cells. <a href="#">J Biol Chem. 285: 5581-93.</a></li><li>7. Wu, Y.G. <i>et al.</i> (2011) Testosterone, not 5{alpha}-Dihydrotestosterone, Stimulates LRH-1 Leading to FSH-Independent Expression of Cyp19 and P450scc in Granulosa Cells. <a href="#">Mol Endocrinol. 25: 656-68.</a></li><li>8. Lu, Y. <i>et al.</i> (2011) BRCA1/BARD1 complex interacts with steroidogenic factor 1--A potential mechanism for regulation of aromatase expression by BRCA1. <a href="#">J Steroid Biochem Mol Biol. 123: 71-8.</a></li><li>9. Barone, I. <i>et al.</i> (2009) Expression of the K303R estrogen receptor-alpha breast cancer mutation induces resistance to an aromatase inhibitor via addiction to the PI3K/Akt kinase pathway. <a href="#">Cancer Res. 69: 4724-32.</a></li><li>10. Ghosh, S. <i>et al.</i> (2008) A Role of CREB in BRCA1 Constitutive Promoter Activity and Aromatase Basal Expression. <a href="#">Int J Biomed Sci. 4 (4): 260-265.</a></li><li>11. Jeong, J.H. <i>et al.</i> (2010) The gene for aromatase, a rate-limiting enzyme for local estrogen biosynthesis, is a downstream target gene of Runx2 in skeletal tissues. <a href="#">Mol Cell Biol. 30: 2365-75.</a></li><li>12. Rago, V. <i>et al.</i> (2005) Cytochrome P450 aromatase expression in human seminoma. <a href="#">Reprod Biol Endocrinol. 3: 72.</a></li><li>13. Schmidt, M. <i>et al.</i> (2005) Androgen conversion in osteoarthritis and rheumatoid arthritis synoviocytes--androstenedione and testosterone inhibit estrogen formation and favor production of more potent 5alpha-reduced androgens. <a href="#">Arthritis Res Ther. 7: R938-48.</a></li></ol>
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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life**

18 months from date of despatch.

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**Health And Safety Information**

Material Safety Datasheet documentation #10336 available at: 10336: <https://www.bio-rad-antibodies.com/uploads/MSDS/10336.pdf>

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**Regulatory**

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