

**CYP24A1 Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF3379a

### Specification

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#### CYP24A1 Antibody (internal region) - Product Information

Application	WB
Primary Accession	<a href="#">Q07973</a>
Other Accession	<a href="#">NP_000773.2</a> , <a href="#">NP_001122387.1</a> , <a href="#">1591</a>
Reactivity	Human, Rat
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	58875

#### CYP24A1 Antibody (internal region) - Additional Information

Gene ID 1591

#### Other Names

1, 25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial, 24-OHase, Vitamin D(3) 24-hydroxylase, 1.14.13.126, Cytochrome P450 24A1, Cytochrome P450-CC24, CYP24A1, CYP24

#### Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

CYP24A1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

#### CYP24A1 Antibody (internal region) - Protein Information

Name CYP24A1 ([HGNC:2602](#))

Synonyms CYP24

#### Function

A cytochrome P450 monooxygenase with a key role in vitamin D catabolism and calcium homeostasis. Via C24- and C23-oxidation pathways, catalyzes the inactivation of both the vitamin D precursor calcidiol (25-hydroxyvitamin D(3)) and the active hormone calcitriol (1-alpha,25-dihydroxyvitamin D(3)) (PubMed: <http://www.uniprot.org/citations/11012668> target="\_blank">11012668</a>, PubMed: <http://www.uniprot.org/citations/15574355>)

target="\_blank">15574355</a>, PubMed:<a href="http://www.uniprot.org/citations/16617161" target="\_blank">16617161</a>, PubMed:<a href="http://www.uniprot.org/citations/24893882" target="\_blank">24893882</a>, PubMed:<a href="http://www.uniprot.org/citations/29461981" target="\_blank">29461981</a>, PubMed:<a href="http://www.uniprot.org/citations/8679605" target="\_blank">8679605</a>). With initial hydroxylation at C-24 (via C24-oxidation pathway), performs a sequential 6-step oxidation of calcitriol leading to the formation of the biliary metabolite calcitroic acid (PubMed:<a href="http://www.uniprot.org/citations/15574355" target="\_blank">15574355</a>, PubMed:<a href="http://www.uniprot.org/citations/24893882" target="\_blank">24893882</a>). With initial hydroxylation at C-23 (via C23-oxidation pathway), catalyzes sequential oxidation of calcidiol leading to the formation of 25(OH)D3-26,23-lactone as end product (PubMed:<a href="http://www.uniprot.org/citations/11012668" target="\_blank">11012668</a>, PubMed:<a href="http://www.uniprot.org/citations/8679605" target="\_blank">8679605</a>). Preferentially hydroxylates at C-25 other vitamin D active metabolites, such as CYP11A1-derived secosteroids 20S- hydroxycholecalciferol and 20S,23-dihydroxycholecalciferol (PubMed:<a href="http://www.uniprot.org/citations/25727742" target="\_blank">25727742</a>). 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 FDXR/adrenodoxin reductase and FDX1/adrenodoxin (PubMed:<a href="http://www.uniprot.org/citations/8679605" target="\_blank">8679605</a>).

#### Cellular Location

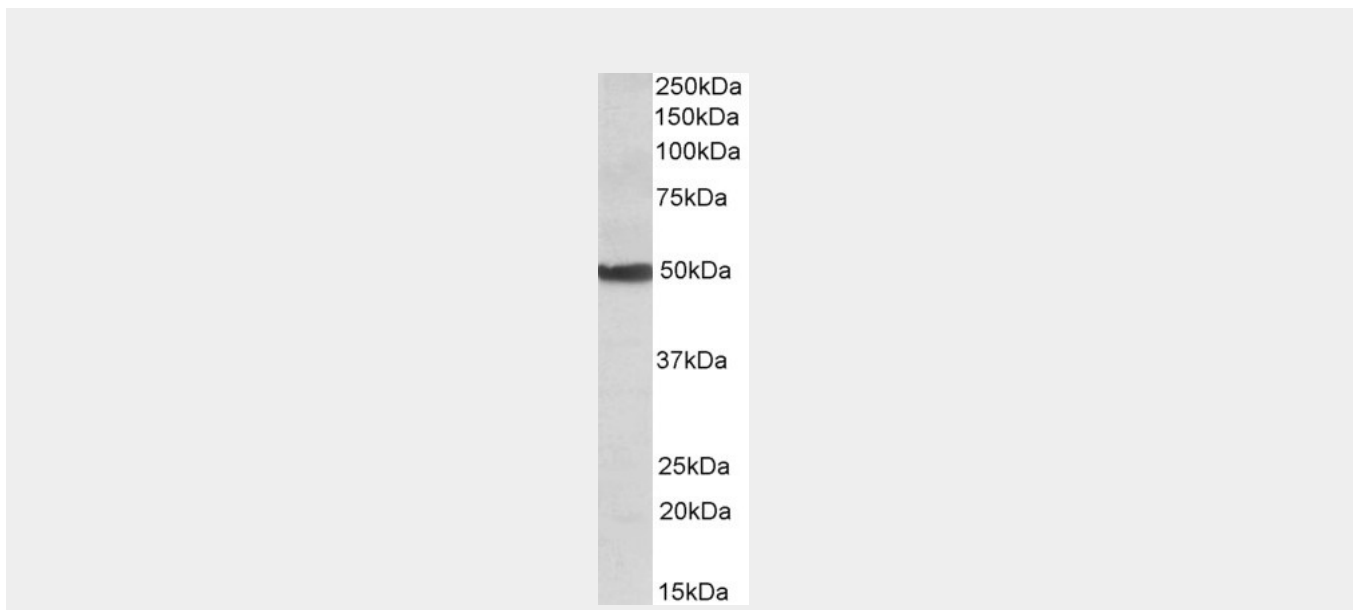
Mitochondrion {ECO:0000250|UniProtKB:Q09128}.

#### CYP24A1 Antibody (internal region) - 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](#)

#### CYP24A1 Antibody (internal region) - Images



AF3379a (0.1 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **CYP24A1 Antibody (internal region) - Background**

This antibody is expected to recognize both reported isoforms (NP\_000773.2; NP\_001122387.1).

#### **CYP24A1 Antibody (internal region) - References**

Association of the vitamin D metabolism gene CYP24A1 with coronary artery calcification. Shen H, Bielak LF, Ferguson JF, Streeten EA, Yerges-Armstrong LM, Liu J, Post W, O'Connell JR, Hixson JE, Kardina SL, Sun YV, Jhun MA, Wang X, Mehta NN, Li M, Koller DL, Hakonarson H, Keating BJ, Rader DJ, Shuldiner AR, Peyser PA, Reilly MP, Mitchell BD. *Arterioscler Thromb Vasc Biol.* 2010 Dec;30(12):2648-54. PMID: 20847308