

ARG42091 anti-CYP24A1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes CYP24A1
Tested Reactivity	Hu
Predict Reactivity	Rat
Tested Application	IHC-P, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	CYP24A1
Species	Human
Immunogen	Synthetic peptide around the internal region of Human CYP24A1. (C-RKYDIQATDN) (NP_000773.2; NP_001122387.1)
Conjugation	Un-conjugated
Alternate Names	CP24; HCAI; CYP24; P450-CC24; 1,25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial; 24-OHase; Vitamin D(3) 24-hydroxylase; EC 1.14.13.126; Cytochrome P450 24A1; Cytochrome P450-CC24

Application Instructions

Application table	Application	Dilution
	IHC-P	3 - 5 µg/ml
	WB	0.1 - 0.3 µg/ml
Application Note	IHC-P: Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). WB: Recommend incubate at RT for 1h. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 50 kDa	

Properties

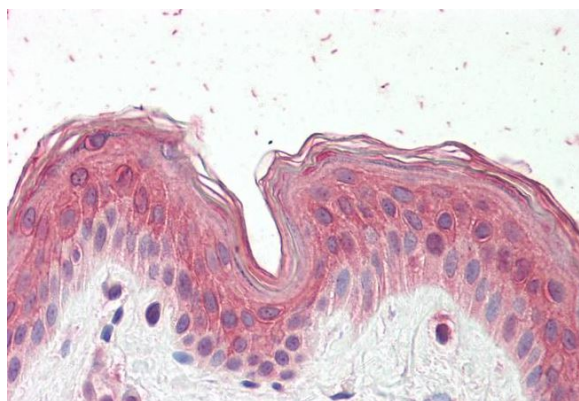
Form	Liquid
Purification	Affinity purified
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CYP24A1
Gene Full Name	cytochrome P450, family 24, subfamily A, polypeptide 1
Background	This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This mitochondrial protein initiates the degradation of 1,25-dihydroxyvitamin D3, the physiologically active form of vitamin D3, by hydroxylation of the side chain. In regulating the level of vitamin D3, this enzyme plays a role in calcium homeostasis and the vitamin D endocrine system. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
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:24893882, PubMed:15574355, PubMed:8679605, PubMed:11012668, PubMed:16617161). 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:24893882, PubMed:15574355). 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:11012668, PubMed:8679605). Preferentially hydroxylates at C-25 other vitamin D active metabolites, such as CYP11A1-derived secosteroids 20S-hydroxycholecalciferol and 20S,23-dihydroxycholecalciferol (PubMed:25727742). 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:8679605). [UniProt]
Calculated Mw	Isoform 1: 59 kDa Isoform 2: 51 kDa
Cellular Localization	Mitochondrion. [UniProt]

Images



ARG42091 anti-CYP24A1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human skin tissue.
Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0). The tissue section was stained with ARG42091 anti-CYP24A1 antibody at 3.75 µg/ml dilution followed by AP-staining.

ARG42091 anti-CYP24A1 antibody WB image

Western blot: 35 µg of Human liver lysate (in RIPA buffer) stained with ARG42091 anti-CYP24A1 antibody at 0.1 µg/ml dilution and incubated at RT for 1 hour.

