

## Recombinant Human CYP24A1, His-tagged

**Cat. No.** CYP24A1-11768H    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**      Recombinant Human CYP24A1 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.

**Species**                      Human

**Source**                        E.coli

**ProteinLength**              1-350a.a.

**Description**                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.

**Storage**                        The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

**Storage Buffer**                1M PBS (58mM Na2HPO4, 17mM NaH2PO4, 68mM NaCl, pH8. ) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.

### GENE INFORMATION

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<b>Gene Name</b>	CYP24A1 cytochrome P450, family 24, subfamily A, polypeptide 1 [ Homo sapiens ]
<b>Official Symbol</b>	CYP24A1
<b>Synonyms</b>	CYP24A1; cytochrome P450, family 24, subfamily A, polypeptide 1; CYP24, cytochrome P450, subfamily XXIV (vitamin D 24 hydroxylase); 1,25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial; CP24; P450 CC24; 24-OHase; cytochrome P450 24A1; cytochrome P450-CC24; vitamin D 24-hydroxylase; exo-mitochondrial protein; vitamin D(3) 24-hydroxylase; 1,25-@dihydroxyvitamin D3 24-hydroxylase; cytochrome P450, subfamily XXIV (vitamin D 24-hydroxylase); HCAI; CYP24; P450-CC24; MGC126273; MGC126274;
<b>Gene ID</b>	1591
<b>mRNA Refseq</b>	NM_000782
<b>Protein Refseq</b>	NP_000773
<b>MIM</b>	126065
<b>UniProt ID</b>	Q07973
<b>Chromosome Location</b>	20q13.2-q13.3
<b>Pathway</b>	Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Metabolism of steroid hormones and vitamins A and D, organism-specific biosystem; Nuclear receptors in lipid metabolism and toxicity, organism-specific biosystem; Phase 1 - Functionalization of compounds, organism-specific biosystem;

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**Function**

1-alpha,25-dihydroxyvitamin D3 24-hydroxylase activity; 25-hydroxycholecalciferol-24-hydroxylase activity; electron carrier activity; heme binding; heme binding; metal ion binding; monooxygenase activity; oxidoreductase activity; oxidoreductase activity,

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