

Full-Length

CYP27B1 (Human) Recombinant Protein (P01)

Catalog # H00001594-P01

Size 50 ug

Specification

Product Description	Human CYP27B1 full-length ORF (BAG37458.1, 1 a.a. - 508 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	MTQTLKYASRVFHRVRWAPELGASLGREYHSARRSLADIPGPSTPSFLAELFCKGGLSRLHELQ VQGAHFPGVWLASFQTVRTVYAAPALVEELLRQEGPRPERCSFSPWTEHRRRCRQRACGLLT AEGEEWQRLRSLLAPLLLRPQAAARYAGTLNNVCDLVRRLRRQRGRGTGPPALVRDVAGEFYK FGLEGIAAVLLGSRLGCLAQVPPDTETFIRAVGSVFVSTLLTMAMPHWLRHLVPGPWGRLCRD WDQMFAFAQRHVERREAEAMRNGGQPEKDLESGAHLTHFLFREELPAQSILGNVTELLLAGVN TVSNTLSWALYELSRHPEVQTALHSEITAALSPGSSAYPSATVLSQLPLLKAVVKEVLRLYPVVPG NSRVPDKDIHVGDYIIPKNTLVTLCHYATSRDPAQFPEPNSFRPARWLGEPTPHPFASLPFGFGK RSCMGRRLAELELQMALAQILTHFEVQPEPGAAPVRPKTRTVLPERSINLQFLDR
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	82.28
Interspecies Antigen Sequence	Mouse (81); Rat (81)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)

- Antibody Production
- Protein Array

Gene Info — CYP27B1

Entrez GeneID	1594
GeneBank Accession#	AK314953.1
Protein Accession#	BAG37458.1
Gene Name	CYP27B1
Gene Alias	CP2B, CYP1, CYP1alpha, CYP27B, P450c1, PDDR, VDD1, VDDR, VDDRI, VDR
Gene Description	cytochrome P450, family 27, subfamily B, polypeptide 1
Omim ID	264700 609506
Gene Ontology	Hyperlink
Gene Summary	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. The protein encoded by this gene localizes to the inner mitochondrial membrane where it hydroxylates 25-hydroxyvitamin D3 at the 1alpha position. This reaction synthesizes 1alpha,25-dihydroxyvitamin D3, the active form of vitamin D3, which binds to the vitamin D receptor and regulates calcium metabolism. Thus this enzyme regulates the level of biologically active vitamin D and plays an important role in calcium homeostasis. Mutations in this gene can result in vitamin D-dependent rickets type I. [provided by RefSeq]
Other Designations	1alpha(OH)ase 25 hydroxyvitamin D3-1-alpha hydroxylase 25-Hydroxyvitamin D3 1alpha-hydroxylase 25-OHD-1 alpha-hydroxylase 25-hydroxyvitamin D-1-alpha-hydroxylase P450C1-alpha P450 VD1-alpha VD3 1A hydroxylase VDDR I calcidiol 1-monooxygenase cytochrome P45

Pathway

- [Metabolic pathways](#)
- [Steroid biosynthesis](#)

Disease

- [Addison Disease](#)

- [Adenocarcinoma](#)
- [Asthma](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Coronary Artery Disease](#)
- [Diabetes](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Progression](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Graves Disease](#)
- [Hashimoto Disease](#)
- [Hypertension](#)
- [Lung Neoplasms](#)
- [Multiple Sclerosis](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Polyendocrinopathies](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)

- [Pulmonary Disease](#)
- [Sarcoidosis](#)
- [Thyroiditis](#)
- [Tuberculosis](#)
- [Vitamin D Deficiency](#)
- [Werner syndrome](#)