

Recombinant Human CYP27B1 Protein, GST-tagged

Cat. No. CYP27B1-2254H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human CYP27B1 full-length ORF (BAG37458.1, 1 a.a. - 508 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	Wheat Germ
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. 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, Jul 2008]
Molecular Mass	82.28 kDa
AA Sequence	MTQTLKYASRVFHRVRWAPELGASLGYREYHSARRSLADIPGPSTPSFLAELFCKG GLSRLHELQVQGAAHFGPVWLASFQTVRTVYVAAPALVEELLRQEGPRPERCSFSP WTEHRRRCRQRACGLLTAEGEEWQRLRSLLAPLLLRPQAAARYAGTLNNVCDLVR RLRRQRGRGTGPPALVRDVAGEFYKFGLEGIAAVLLGSRLGCLEAQVPPDTETFIRA

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VGSVFVSTLLTMAMPHWLRHLVPGPWGRLCRDWDQMFAFAQRHVERREAEAAAMR
 NGGQPEKDLESGAHLTHFLFREELPAQSILGNVTELLAGVNTVSNLTSWALYELSR
 HPEVQTALHSEITAALSPGSSAYPSATVLSQLPLLKAVVKEVLRLYPVVPGNSRVPD
 KDIHVGDYIIPKNTLVTLCHYATSRDPAQFPEPNSFRPARWLGEPTPHPFASLPFG
 FGKRSCMGRRLAELQLMALAQILTHFEVQPEPGAAPVRPKTRTVLPERSINLQFL
 DR

Applications

Enzyme-linked Immunoabsorbent Assay
 Western Blot (Recombinant protein)
 Antibody Production
 Protein Array

Notes

Best use within three months from the date of receipt of this protein.

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name

CYP27B1 cytochrome P450, family 27, subfamily B, polypeptide 1 [Homo sapiens]

Official Symbol

CYP27B1

Synonyms

CYP27B1; cytochrome P450, family 27, subfamily B, polypeptide 1; cytochrome P450, subfamily XXVIIB (25 hydroxyvitamin D 1 alpha hydroxylase), polypeptide 1 , PDDR, VDD1; 25-hydroxyvitamin D-1 alpha hydroxylase, mitochondrial; 1alpha(OH)ase; 25 Hydroxyvitamin D3 1alpha hydroxylase; CYP1; P450c1; VDDR I; VD3 1A hydroxylase; cytochrome p450 27B1; cytochrome P450C1 alpha; cytochrome P450VD1-alpha; calcidiol 1-monooxygenase; 25-OHD-1 alpha-hydroxylase; 25 hydroxyvitamin D3-1-alpha hydroxylase; cytochrome P450 subfamily XXVIIB

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polypeptide 1; VDR; CP2B; PDDR; VDD1; VDDR; VDDRI; CYP27B; CYP1alpha;

Gene ID	1594
mRNA Refseq	NM_000785
Protein Refseq	NP_000776
MIM	609506
UniProt ID	O15528

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