

Recombinant Human CYP27B1 Protein, GST-tagged

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

SPECIFICATION

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|-------------------------|---|
| 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 | <p>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]</p> |
| Molecular Mass | 82.28 kDa |
| AA Sequence | <p>MTQTLKYASRVFHRVVRWAPELGASLGYREYHSARRSLADIPGPSTPSFLAELFCKG GLSRLHELQVQGAAHFGPVWLASFGTVRTVYVAAPALVEELLRQEGPRPERCSFSP WTEHRRRCRQRACGLLTAEGEEWQLRLSLLAPLLLRPQAAARYAGTLNNVCDLVR RLRRQRGRGTGPPALVRDVAGEFYKFGLEGIAAVLLGSRLGCLEAQVPPDTETFIRA</p> |

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VGSVVFVSTLLTMAMPHWLRHLVPGPWGRLCRDWDQMFAFAQRHVERREAEAAAMR
 NNGGQPEKDLESGAHLTHFLFREELPAQSILGNVTELLLAGVNTVSNTLSWALYELSR
 HPEVQTALHSEITAALSPGSSAYPSATVLSQLPLLKAVVKEVLRLYPVVPGNSRVPD
 KDIHVGDIYIPKNTLVTLCHYATSRDPAQFPEPNSFRPARWLGEPTPHPFASLPFG
 FGKRSCMGRRLAELELQMALAQILTHFEVQPEPGAAPVRPKTRTVLPERSINLQFL
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| 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

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|------------------------|--|
| 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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