

## Recombinant Human CYP2B6

**Cat. No.** CYP2B6-28193TH    **Lot. No.** (See product label)

### SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b>   | Recombinant full length Human Cytochrome P450 2B6 with an N terminal proprietary tag; Predicted MWt 80.08 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>             | Wheat Germ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>      | 491 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>        | <p>This gene, CYP2B6, 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 protein localizes to the endoplasmic reticulum and its expression is induced by phenobarbital. The enzyme is known to metabolize some xenobiotics, such as the anti-cancer drugs cyclophosphamide and ifosphamide. Transcript variants for this gene have been described; however, it has not been resolved whether these transcripts are in fact produced by this gene or by a closely related pseudogene, CYP2B7. Both the gene and the pseudogene are located in the middle of a CYP2A pseudogene found in a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q.</p> |
| <b>Molecular Weight</b>   | 80.080kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tissue specificity</b> | Expressed in liver, lung and heart right ventricle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| <b>Form</b>                     | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>                   | Proprietary Purification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Storage buffer</b>           | pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Storage</b>                  | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Sequences of amino acids</b> | MELSVLLFLALLTGLLLLLVQRHPNTHDRLPPGPRPLPLL GNLLQMDRRGLLKSFLR<br>FREKYGDVFTVHLGPRPVVMLCG VEAIREALVDKAEAFSGRGKIAMVDPFFRGYGV<br>IFANGNR WKVLRRFSVTTMRDFGMGKRSVEERIQEEAQCLIEELRKS KGALMDPTF<br>LFQSITANIICSIVFGKRFHYQDQEFLKMLN LFYQTFSLISSVFGQLFELFSGFLTYP<br>GAHRQVYKNLQE INAYIGHSVEKHRETLDPSAPKDLIDTYLLHMEEEEKNAH SEFS<br>HQNLNLNTLSLFFAGTETTSTTLRYGFLMLKYPHV AERVYREIEQVIGPHRPPELH<br>DRAKMPYTEAVIYEIQRFS DLLPMGVPHIVTQHTSFRGYIIPKDTEVFLILSTALHDPH<br>YFEKPDADFNPDPDANGALKKTEAFIPFSLGKRICLGEG IARAEFLFFTTILQNFSM<br>ASPVAPEDIDLTPQECGVGKI PPTYQIRFLPR |
| <b>Sequence Similarities</b>    | Belongs to the cytochrome P450 family.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | CYP2B6 cytochrome P450, family 2, subfamily B, polypeptide 6 [ Homo sapiens ]                                                                                                                                                                      |
| <b>Official Symbol</b> | CYP2B6                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | CYP2B6; cytochrome P450, family 2, subfamily B, polypeptide 6; CYP2B, cytochrome P450, family 2, subfamily B , cytochrome P450, subfamily IIB (phenobarbital inducible) , cytochrome P450, subfamily IIB (phenobarbital inducible), polypeptide 6; |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | cytochrom                                                                                                                                                                                                                                                                                                  |
| <b>Gene ID</b>             | 1555                                                                                                                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>         | NM_000767                                                                                                                                                                                                                                                                                                  |
| <b>Protein Refseq</b>      | NP_000758                                                                                                                                                                                                                                                                                                  |
| <b>MIM</b>                 | 123930                                                                                                                                                                                                                                                                                                     |
| <b>Uniprot ID</b>          | P20813                                                                                                                                                                                                                                                                                                     |
| <b>Chromosome Location</b> | 19q13.2                                                                                                                                                                                                                                                                                                    |
| <b>Pathway</b>             | Arachidonic acid metabolism, organism-specific biosystem; Arachidonic acid metabolism, conserved biosystem; Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; |
| <b>Function</b>            | aromatase activity; electron carrier activity; heme binding; metal ion binding; monooxygenase activity;                                                                                                                                                                                                    |