

## Recombinant Full Length Human CYB5R3 Protein, C-Flag-tagged

**Cat. No.** CYB5R3-2039HFL    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human CYB5R3 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | <p>This gene encodes cytochrome b5 reductase, which includes a membrane-bound form in somatic cells (anchored in the endoplasmic reticulum, mitochondrial and other membranes) and a soluble form in erythrocytes. The membrane-bound form exists mainly on the cytoplasmic side of the endoplasmic reticulum and functions in desaturation and elongation of fatty acids, in cholesterol biosynthesis, and in drug metabolism. The erythrocyte form is located in a soluble fraction of circulating erythrocytes and is involved in methemoglobin reduction. The membrane-bound form has both membrane-binding and catalytic domains, while the soluble form has only the catalytic domain. Alternate splicing results in multiple transcript variants. Mutations in this gene cause methemoglobinemias.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | 34.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>AA Sequence</b>      | MGAQLSTLGHMVLPVWFLYSLLMKLFQRSTPAITLESPIKYLRLIDREIISHDTRR<br>FRFALPSPQHI LGLPVGQHIYLSARIDGNLVVRPYTPISSDDDDKGFVDLVIKVYFKDT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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HPKFPAGGKMSQYLESMQIGDTI EFRGPSGLLVYQGKGKFAIRPDKKSNPIIRTVKS  
 VGMIAAGGTGITPMLQVIRAIMKDPDDHTVCHLLFAN QTEKDILLRPELEELRNKHSAR  
 FKLWYTLDRAPAWDYGQGFVNEEMIRDHLPPPEEEPLVLMCGPPPMI QYACLPN  
 LDHVGHPТЕРCFVF TRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome                                                                                                                              |
| <b>Protein Pathways</b> | Amino sugar and nucleotide sugar metabolism                                                                                                   |
| <b>Full Length</b>      | Full L.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                           |
|------------------------|-----------------------------------------------------------|
| <b>Gene Name</b>       | CYB5R3 cytochrome b5 reductase 3 [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | CYB5R3                                                    |
| <b>Synonyms</b>        | B5R; DIA1                                                 |

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|                |             |
|----------------|-------------|
| Gene ID        | 1727        |
| mRNA Refseq    | NM_000398.7 |
| Protein Refseq | NP_000389.1 |
| MIM            | 613213      |
| UniProt ID     | P00387      |



Coomassie blue staining of purified CYB5R3 protein.