

Recombinant Human CYB5R3, His-tagged

Cat. No. CYB5R3-11748H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYB5R3 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-301a.a.
Description	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.
Source	E.coli
Species	Human
Tag	His

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Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15% glycerol.
GENE INFORMATION	
Gene Name	CYB5R3 cytochrome b5 reductase 3 [Homo sapiens]
Official Symbol	CYB5R3
Synonyms	CYB5R3; cytochrome b5 reductase 3; DIA1, diaphorase (NADH) (cytochrome b 5 reductase); NADH-cytochrome b5 reductase 3; diaphorase-1; NADH-cytochrome b5 reductase 3 soluble form; NADH-cytochrome b5 reductase 3 membrane-bound form; B5R; DIA1;
Gene ID	1727
mRNA Refseq	NM_000398
Protein Refseq	NP_000389
MIM	613213
UniProt ID	P00387
Chromosome Location	22q13.31-qter
Pathway	Amino sugar and nucleotide sugar metabolism, organism-specific biosystem; Amino

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sugar and nucleotide sugar metabolism, conserved biosystem; Metabolism, organism-specific biosystem; Metabolism of vitamins and cofactors, organism-specific biosystem; Metabolism of water-soluble vitamins and cofactors, organism-specific biosystem; Vitamin C (ascorbate) metabolism, organism-specific biosystem; gamma-linolenate biosynthesis II (animals), organism-specific biosystem;

Function

FAD binding; cytochrome-b5 reductase activity; oxidoreductase activity;

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