

Recombinant human CYB5R3 protein

Catalog Number: ATGP1380

PRODUCT INFORMATION

Expression system

E.coli

Domain

27-301aa

UniProt No.

P00387

NCBI Accession No.

NP_000389.1

Alternative Names

Cytochrome b5 reductase 3., B5R, DIA1

PRODUCT SPECIFICATION

Molecular Weight

34 kDa (300aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1M NaCl.

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

CYB5R3 is a 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

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has only the catalytic domain. Mutations in this gene cause methemoglobinemias. Recombinant human CYB5R3 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

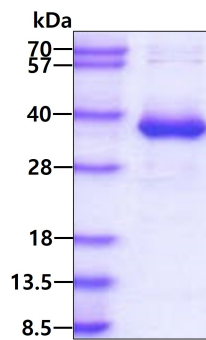
<MGSSHHHHHH SSGLVPRGSH MGSHM>FQRST PAITLESPTDI KYPLRLIDRE IISHDTRRRFR FALPSPQHIL GLPVGQHIYL SARIDGNLVV RPYTPISSDD DKGFDLVLIK VYFKDTHPKF PAGGKMSQYL ESMQIGDTIE FRGPSGLLVY QGKGFKAIRP DKKSNPIIRT VKSVGMIAGG TGITPMLQVI RAIMKDPDDH TVCHLLFANQ TEKDILLRPE LEELRNKHSR RFKLWYTLDR APEAWDYGGQ FVNEEMIRDH LPPPEEEPLV LMCGPPPMIQ YAQLPNLDHV GHPTERCFVF

General References

Percy MJ., et al. (2006) Arch Biochem Biophys. 447(1):59-67.
Roma GW., et al. (2006) Arch Biochem Biophys. 452(1):69-82.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.